

Service Manual



# Service Manual

## KG200



Model : KG200



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# **1. INTRODUCTION**

## **1.1 Unit SPECIFICATION**

	7330
RTP	Sep/ M, 2006
Solution	6226M
Type	Bar type
Antenna Type	Internal( tri-Band)
Main Display	1,8" 128x160
GPRS	Yes, Class 10
MMS	Yes, 1.1
Camera	Change to 1.3 M
Battery	800 mAh
Audio player--real resuming	Yes
FM Receiver	Yes
MPEG4/H.263	Yes
H.264	No
AAC+	No
FM as alarm	Yes
Scheduled FM recording	Yes
MP4 for incoming call/ power on off animation and screen saver	Yes
Speaker	Yes, single speaker
Audio player--real resuming	Yes

## 1. INTRODUCTION

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Video recording	Yes
Memory Size	128Mb flash + 32Mb Ram
Internal NAND	64MB
Memory Card	MicroSD
Bluetooth	No
USB	Yes, slave 1.1
IrMC	No
WAP	Yes, 2.0
Java	No
PoC	No
EMAIL	No
Status LED with one color	Yes
DRM	No, OMA 1.0
Dictionary	No
MPEG4 caller ID	Yes
Finger handwriting	No
Touch Panel	No
OTA	Yes
AB repeat	Yes
Music Equalizer	Yes
Image Editing	No
In flight mode	Yes

### 1.2 PERFORMANCE

#### PRODUCT SPECIFICATION

NO	NAME	SPECIFICATION
1	Frequency Band	<b>EGSM900 Band</b> <ul style="list-style-type: none"><li>• TX: <math>890+n*0.2</math> MHz</li><li>• RX: <math>935+n*0.2</math> MHz (n= 0~124)</li><li>• TX: <math>890+(n-1024)*0.2</math> MHz</li><li>• RX: <math>935+(n-1024)*0.2</math> MHz (n= 975~1023)</li></ul> <b>DCS1800 Band</b> <ul style="list-style-type: none"><li>• TX: <math>1710+(n-512)*0.2</math> MHz</li><li>• RX: <math>1805+(n-512)*0.2</math> MHz (n= 512~885)</li></ul> <b>PCS1900 Band</b> <ul style="list-style-type: none"><li>• TX: <math>1850.2+(n-512)*0.2</math> MHz</li><li>• RX: <math>1930.2+(n-512)*0.2</math> MHz (n= 512~810)</li></ul>
2	Phase Error	RMS < 5 degrees Peak < 20 degrees
3	Frequency Error	EGSM900: < 0.1ppm (90 Hz) DCS: < 0.1ppm (180 Hz) PCS: < 0.1ppm (190 Hz)

# 1. INTRODUCTION

4	Transmit Power	<b>EGSM900</b>		
		Control Level	Power Level	Tolerance
		5(high)	33 dBm	±2dB
		6	31 dBm	±3dB
		7	29 dBm	±3dB
		8	27 dBm	±3dB
		9	25 dBm	±3dB
		10	23 dBm	±3dB
		11	21 dBm	±3dB
		12	19 dBm	±3dB
		13	17 dBm	±3dB
		14	15 dBm	±3dB
		15	13 dBm	±3dB
		16	11 dBm	±5dB
		17	9 dBm	±5dB
		18	7 dBm	±5dB
		19(low)	5 dBm	±5dB
		<b>DCS1800/PCS1900</b>		
		Control Level	Power Level	Tolerance
		0(high)	30 dBm	±2dB
		1	28 dBm	±3dB
		2	26 dBm	±3dB
		3	24 dBm	±3dB
		4	22 dBm	±3dB
		5	20 dBm	±3dB
		6	18 dBm	±3dB
		7	16 dBm	±3dB
		8	14 dBm	±3dB
		9	12 dBm	±4dB
		10	10 dBm	±4dB
		11	8 dBm	±4dB
		12	6 dBm	±4dB
		13	4 dBm	±4dB
		14	2 dBm	±5dB
		15	0 dBm	±5dB

## 1. INTRODUCTION

Item	Description	Specification	
5	Spectrum due to modulation	<b>EGSM900</b>	
		OFFSET from Carrier (KHz)	Max. (dBm)
		$\pm 100$	+0.5
		$\pm 200$	-30
		$\pm 250$	-33
		$\pm 400$	-60
		$\pm 600 \sim < \pm 1,200$	-60
		$\pm 1,200 \sim < \pm 1,800$	-60
		$\pm 1,800 \sim < \pm 3,000$	-63
		$\pm 3,000 \sim < \pm 6,000$	-65
		$\geq \pm 6,000$	-71
		<b>DCS1800/PCS1900</b>	
		OFFSET from Carrier (KHz)	Max. (dBm)
		$\pm 100$	+0.5
		$\pm 200$	-30
		$\pm 250$	-33
		$\pm 400$	-60
		$\pm 600 \sim < \pm 1,200$	-60
		$\pm 1,200 \sim < \pm 1,800$	-60
		$\pm 1,800 \sim < \pm 3,000$	-65
		$\pm 3,000 \sim < \pm 6,000$	-65
		$\geq \pm 6,000$	-73
6	Spectrum due to switching transient	<b>EGSM900</b>	
		OFFSET from Carrier (KHz)	Max. (dBm)
		$\pm 400$	-19
		$\pm 600$	-21
		$\pm 1,200$	-21
		$\pm 1,800$	-24



# 1. INTRODUCTION

Item	Description	Specification		
6	Spectrum due to switching transient	<b>DCS1800/PCS1900</b>		
		OFFSET from Carrier (KHz)		Max. (dBm)
		±400		-22
		±600		-24
		±1,200		-24
		±1,800		-27
7	Bit Error Rate	<b>EGSM900</b> BER (Class II) < 2% @ -105dBm <b>DCS/PCS</b> BER (Class II) < 2% @ -103dBm		
8	SLR(Sending Loudness Ratio)	8 +/- 3 dB		
9	Sending Response	Frequency (Hz)	Max.(dB)	Min.(dB)
		100	-12	-
		200	0	-
		300	0	-12
		1,000	0	-6
		2,000	4	-6
		3,000	4	-6
		3,400	4	-9
		4,000	0	-
10	RLR(Receiver Loudness Ratio)	2 ±3 dB		
11	Receiving Response	Frequency (Hz)	Max.(dB)	Min.(dB)
		100	-12	-
		200	0	-
		300	2	-7
		500	*	-5
		1,000	0	-5
		3,000	2	-5
		3,400	2	-10
		4,000	2	
		* Mean that adopt a straight line in between 300Hz & 1000Hz to be Max. Level in the range.		

## 2. Software Download Procedure

### Tools

1. Download cable
2. PC
3. Battery (3.8 V Li-ion Battery)

**How to user Leo download tool**

### 2.1 Install Leo Download tool



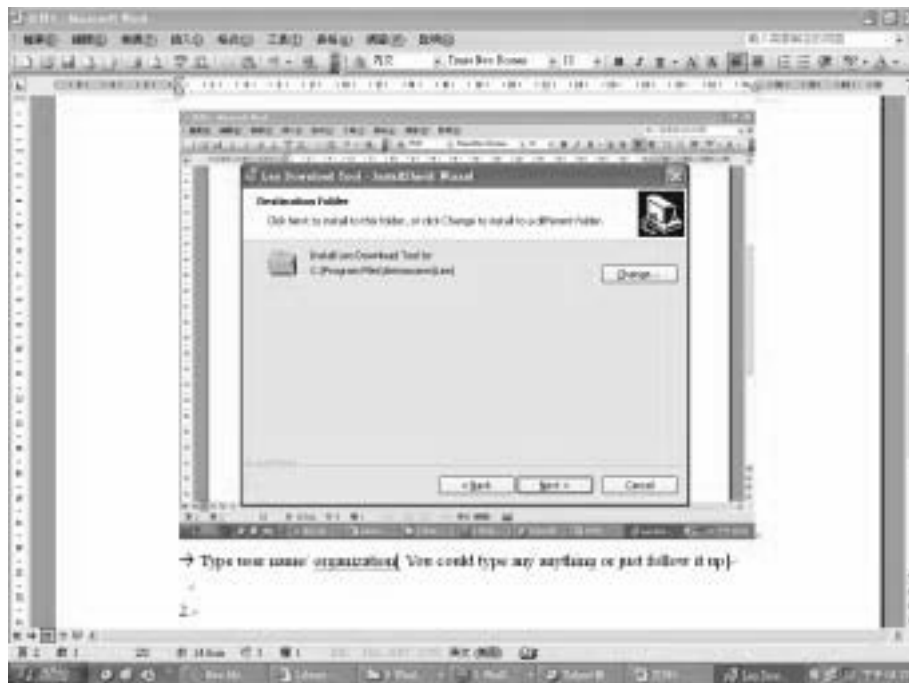
→ Choose I accept the terms in the license agreement



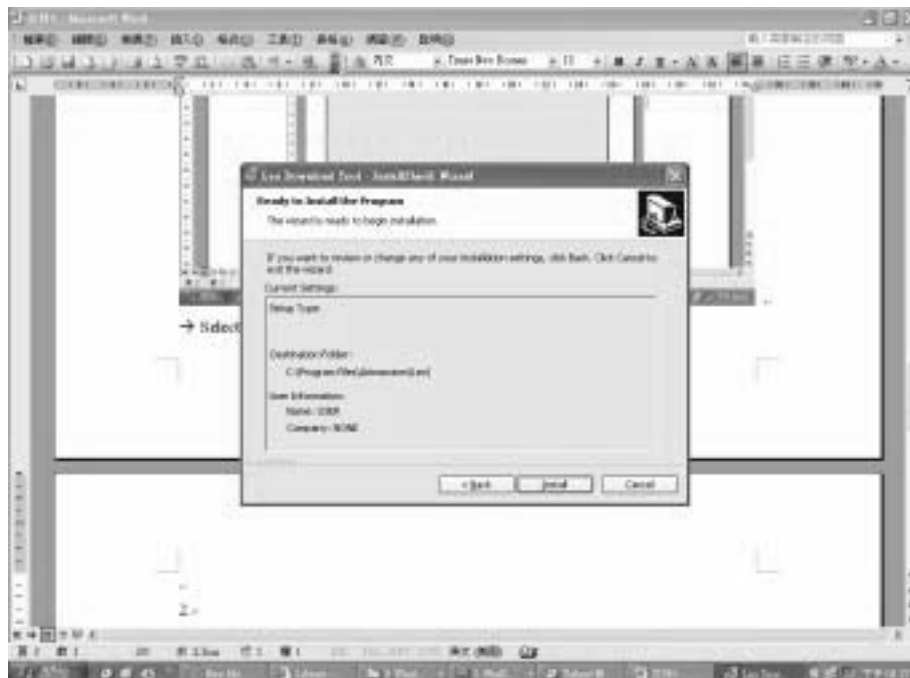
→ Type user name / organization. [You could type any anything or just follow it up]

## 2. Software Download Procedure

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→ Select default folder



→ Press Install



→ Press Finish



→ Enable Leo Download tool

## 2. Software Download Procedure

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### 2.2 Connect Download cable with computer and mobile

### 2.3 Install SW



→ Select COM port (Maybe it will show different COM because of we use different computer)

## 2. Software Download Procedure



→ Press Setting and then you will see Multiport Data folder. Change it to the folder which you store the SW.



→ Select the .Pcs file and press open. After few seconds, you will see below screen.

## 2. Software Download Procedure

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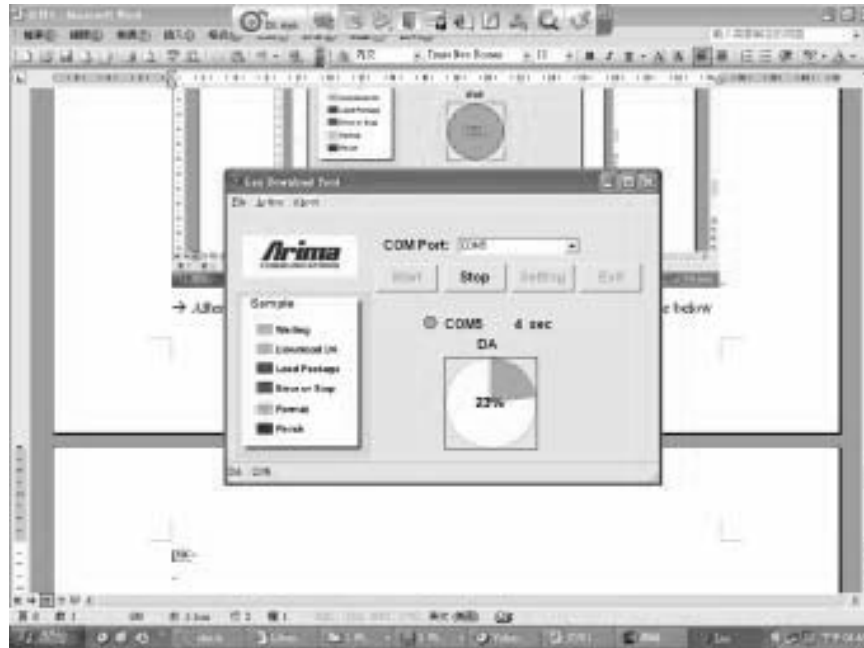


→ Press Yes



→ After you see the pink cycle, long press power on key and then you will see below picture.

## 2. Software Download Procedure



→ After reach to 100%, SW downloads finish.

### 2.4 Check Software version

2.4.1 Install battery and power on phone.

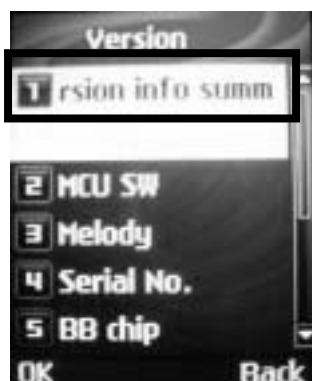
2.4.2 Press 8 7 8 ( SIM card not installed ) or \* # 8 7 8 # ( SIM card installed ) to enter service mode.

2.4.3 Select 2. Version → 1. Summary to check Software Version

2.4.4 Quickly to check SW version: \* # 8 3 7 5 #

2.4.5 Quickly to change to English language: \* # 0 8 8 6 #

= Send Key





### 3. Assembly and Disassembly

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## 3. Assembly and Disassembly

### Tools

- \* Torque screwdriver,  $\oplus$  no.6 set
- \* Pair of tweezers
- \* Guitar Pick

### 3.1 Disassembly

- Take off battery cover



- Release 4 screws from B-Cover.



### 3. Assembly and Disassembly

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iii. Use the Guitar Pick to take off B-Cover



iv. Remove the Receiver and Key Pad from A-Cover



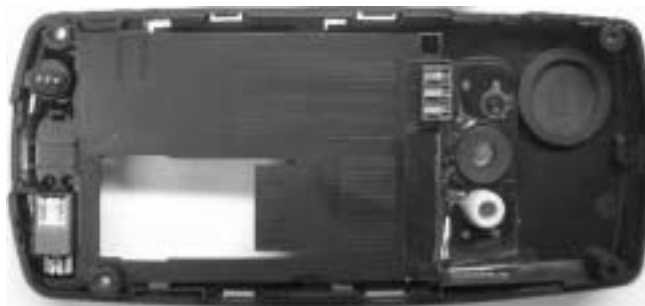
### 3. Assembly and Disassembly

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v. Take off the Main Board from B-Cover



vi. Take off the Vibrator, side key, BATT connect and from B-Cover



### 3. Assembly and Disassembly

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- vii. Take off the LCM from Main Board
  - 1. Release the LCM connect from Main Board
  - 2. Take off LCM from LCM place.



#### 3.2 Assembly

Please do the reverse steps of disassembly for assembly phone.

## 4. Troubleshooting

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## 4. Troubleshooting

### Explanations

The Go / No Go test has to be performed with a mounted phone.

### Service function in the software

The service menu will be accessed with the following key combination.

\* # 8 7 8 # (SIM card in side) or 8 7 8 (No SIM card in side)

In the software of the phone there is a built in service functionality that allows you to test some of the functions of the phone. This is how it looks:

- |                 |                     |
|-----------------|---------------------|
| 1. Auto test    | 12. ADC             |
| 2. Version      | 13. Charger         |
| 3. Resource BIN | 14. Headset         |
| 4. Echo Loop    | 15. RTC             |
| 5. Keypad       | 16. MTBF            |
| 6. Vibrator     | 17. UART            |
| 7. Loud SPK     | 18. Memory Card     |
| 8. Ring Tone    | 19. Nand Flash      |
| 9. LED          | 20. Camera          |
| 10. LCD         | 21. Total call time |
| 11. Receiver    | 22. FM Radio        |

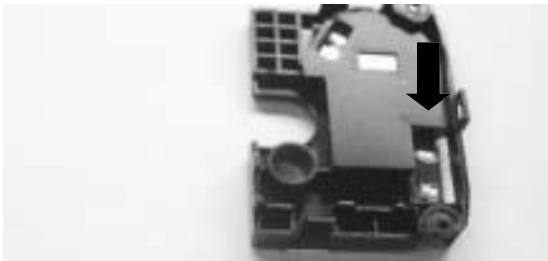
### Network Problems

Make a general visual inspection for corrosion or oxidation from liquid damage.

Check that the antenna connects is properly fitted and undamaged (Fig.1.1).

Replace the antenna if necessary.

Check that the antenna Flex Film (Fig 1.2) is not mechanical damaged, dirty or oxidized. Replace it if necessary.



**Fig 1.1**



**Figs 1.2**

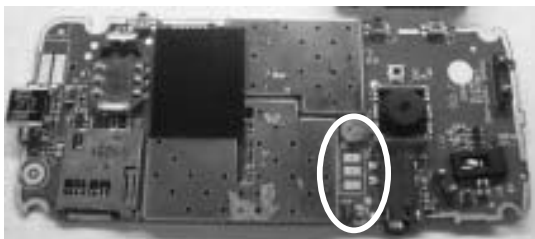
### On/Off problems

Make a general visual inspection for corrosion or oxidation from liquid damage.

Check that the battery pads (Fig.2.1.) are dirty or oxidized. If necessary clean the battery pads.

Check that the Battery (Fig.2.2.) is not mechanical damaged, dirty or oxidized.

Change it if necessary.



**Fig.2.1**



**Fig.2.2**

## 4. Troubleshooting

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### Audio problems

#### Receiver

Turn on the phone. Go to service test menu; choose “11. Receiver” presses any key to check that the Receiver is working properly.

Check Receiver and receiver connector (Fig 3.1)



**Fig.3.1**

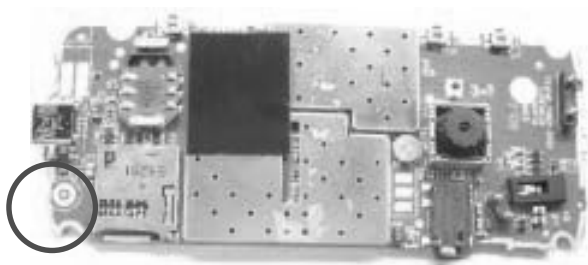
#### Microphone

1. Turn on the phone. Go to service test menu; choose “4. Echo Loop” (An audio loop is activated) check that the Microphone is working properly.

Check that the Microphone Pad (Fig.4.1) is not oxidized or dirty. Clean it if necessary.

Check that the Microphone (Fig.4.2) is not mechanical damaged, dirty or oxidized.

Replace it if necessary.



**Fig.4.1**



**Fig.4.2**

### Display/Illumination problems

Make a general visual inspection for corrosion or oxidation from liquid damage.

Turn the phone on. Check the LCD and the illumination. The illumination is lightened when the phone starts and will continue for approximately 20 sec

Turn the phone on. Go to service test menu; choose “10. LCD” . You should see a pattern check that no lines or pixels are missing and that there are no discolorations. If necessary replace the LCM.

If all segments are missing check that the LCD connector (Fig.5.1) and LCD FPC (Fig 5.2) is not mechanical damaged, dirty or oxidized.

Turn the phone on. Go to service test menu; choose “9. LED” . The illumination should start flashing (Fig 5.3).

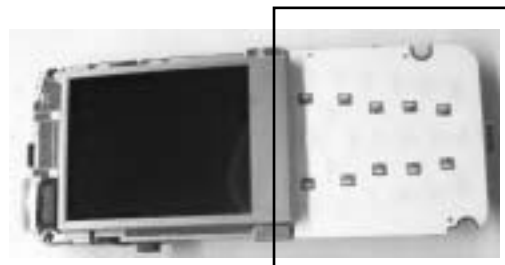
Check that all 10 Keypad LEDs have the same illumination strength. If necessary replace the LED with the weakest light. Repeat this step until all LEDs light ever over the keypad.



**Fig.5.1**



**Fig.5.2**



**Fig.5.3**



## 4. Troubleshooting

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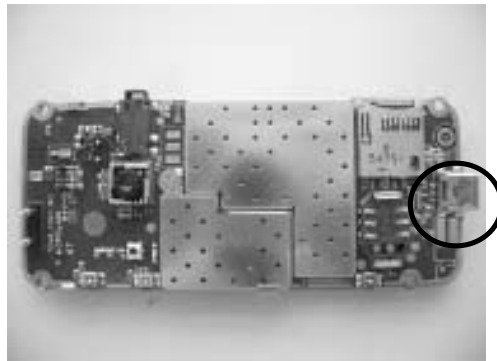
### Capacity/Charging Problems

Make a general visual inspection for corrosion or oxidation from liquid damage.

#### Charging

Insert a working battery and connect a working charger to the phone. If the battery voltage is too low, you must charge the battery without turning on the phone (this will usually take less than 10 minutes) and when the battery voltage is high enough the phone will be able to turn on and show charging in the Display.

Check that the system connector (Fig.6.1) is incorrectly soldered, not mechanical damaged, dirty or oxidized. Replace it if necessary.



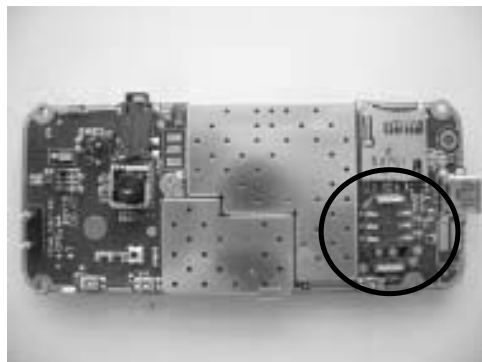
**Fig.6.1**

### SIM Problems

Make a general visual inspection for corrosion or oxidation from liquid damage.

Insert a SIM card with known function. If the display shows "Insert card" there is a SIM problem. If it shows "Insert correct card" the phone might be SIM locked in this case use a test SIM card.

Check that the SIM reader (Fig.7.1) is incorrectly soldered, not mechanical damaged, dirty or oxidized. Replace it if necessary.



**Fig.7.1**

### Key Function Problems

Make a general visual inspection for corrosion or oxidation from liquid damage.

Turn the phone on. Go to service test menu; choose "5.Keypad". Press all the buttons. The pressed key will be shown in the Main display.

Check that the mechanical response feels normal and that all the keys had been shown in the Main display. Replace the Metal dome If necessary (Fig.8.1.).

Check that the mechanical response feels normal and that all the keys had been shown in the Main display. Clean the key pads If necessary (Fig.8.2.).



**Fig.8.1**



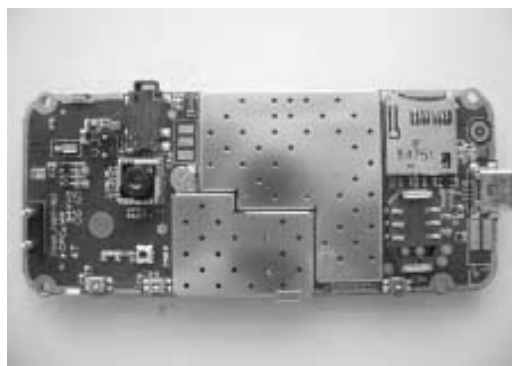
**Fig.8.2**

### Data Communication Problems

If no communication is accomplished with the system connector:

Make a general visual inspection for corrosion or oxidation from liquid damage

Check that the system connector (Fig.9.1.) is incorrectly soldered, not mechanical damaged, dirty or oxidized. Replace it if necessary.



**Fig.9.1**

## 4. Troubleshooting

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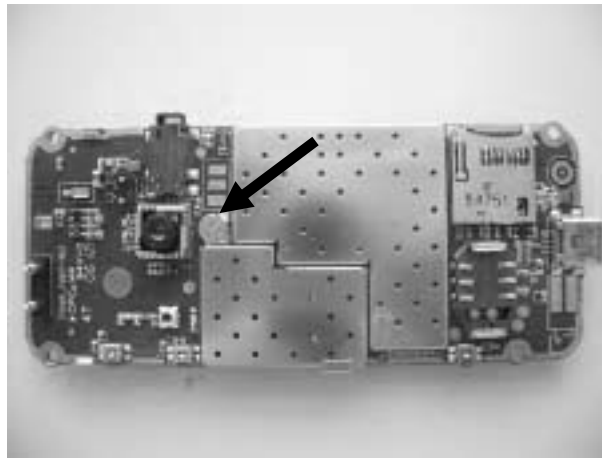
### Other Problems

Make a general visual inspection for corrosion or oxidation from liquid damage according to point.

Turn on the phone. Go to service test menu; choose "15. RTC" press any key to check that the RTC is working properly.

Check that the clock is working and that it does not start up with 00:00 when a battery is mounted.

Replace the Backup battery if necessary (Fig.10.1).



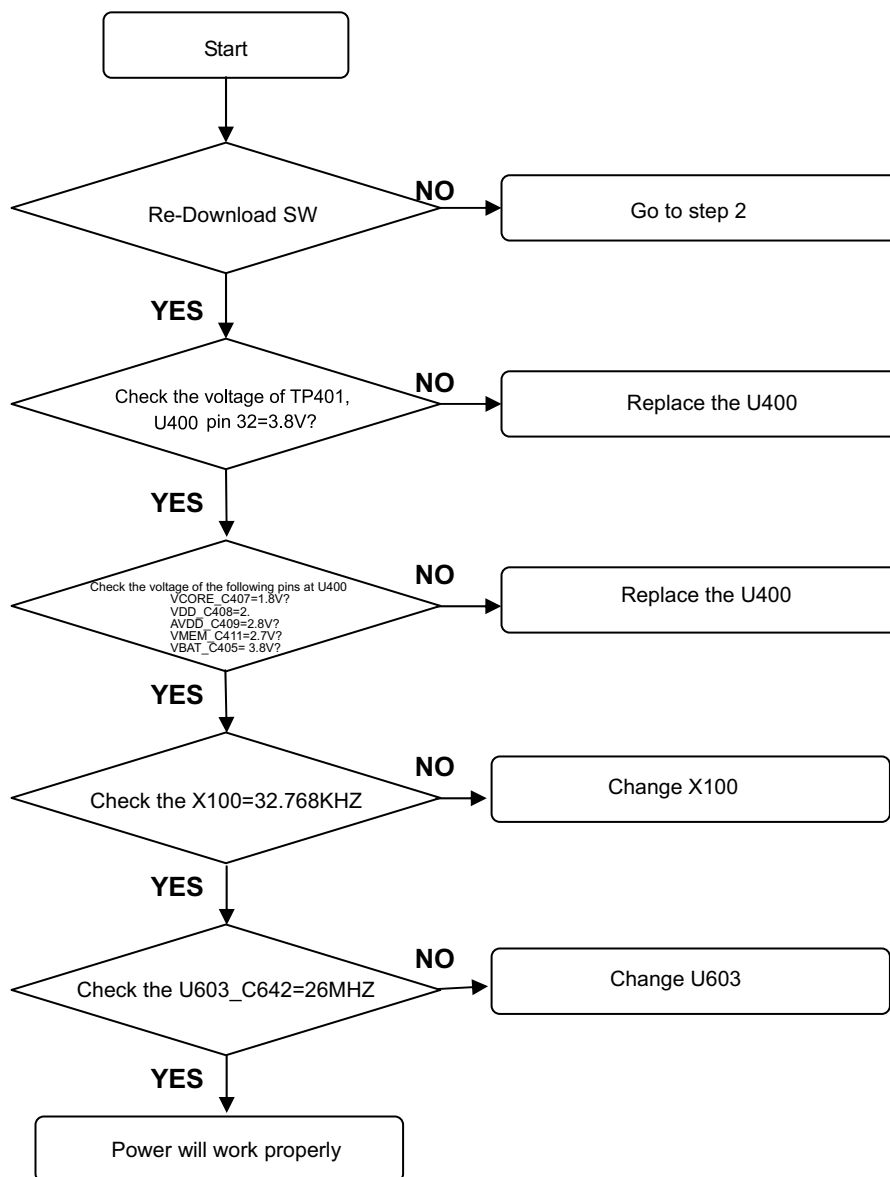
**Fig.10.1**



## 4. Troubleshooting

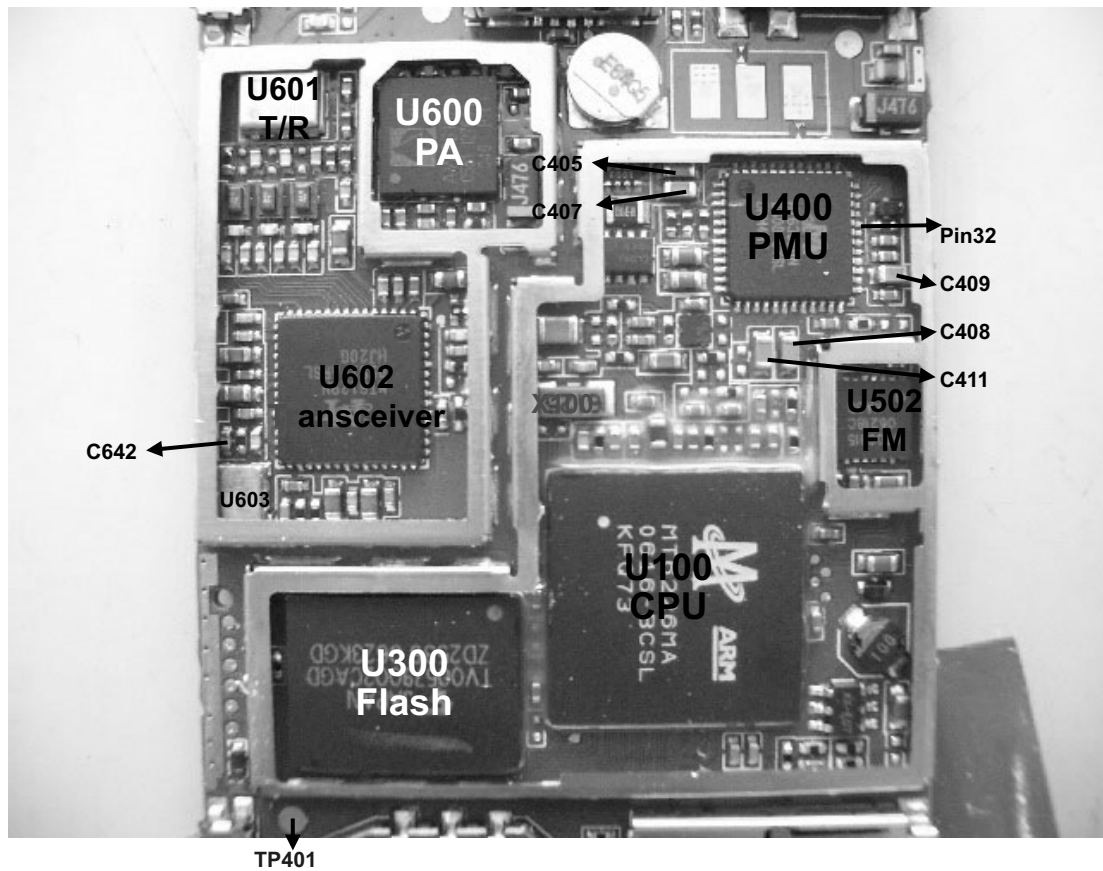
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### Power on/off Problem



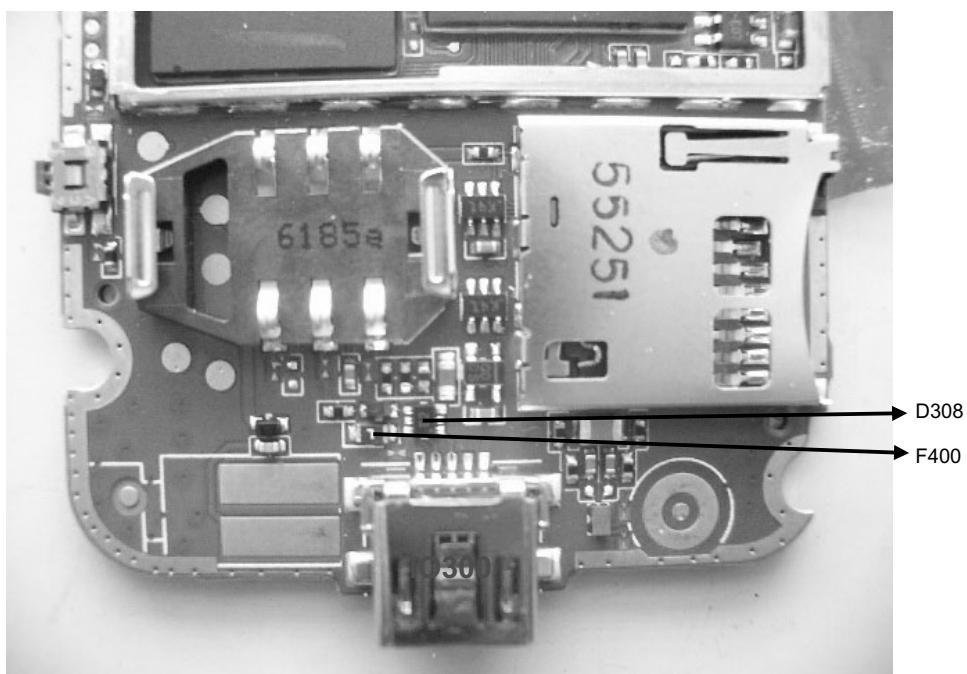
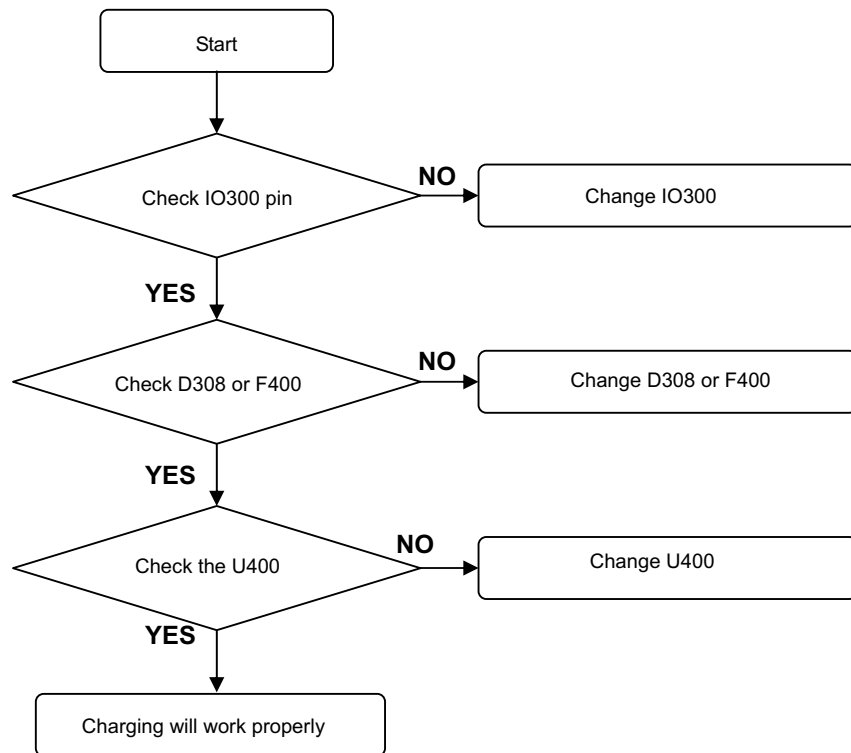
## 4. Troubleshooting

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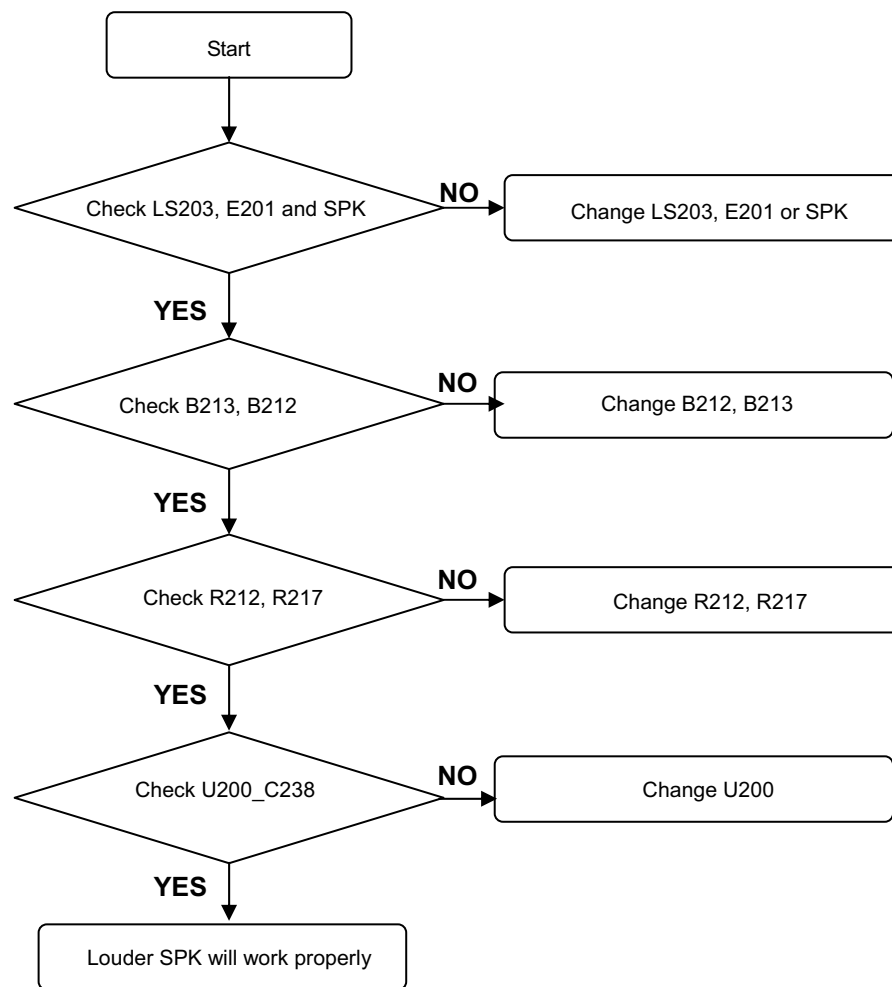


## 4. Troubleshooting

### Charging Problem

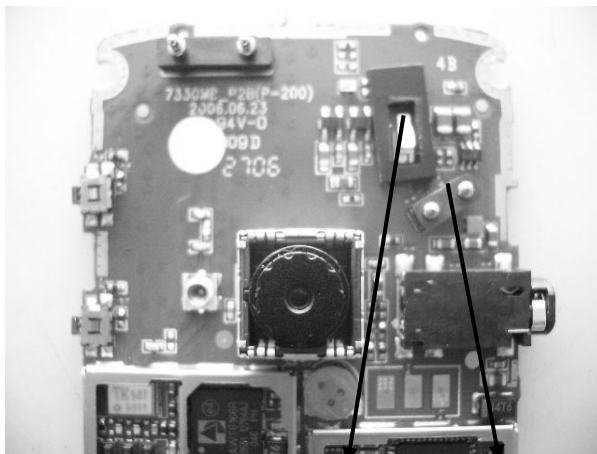
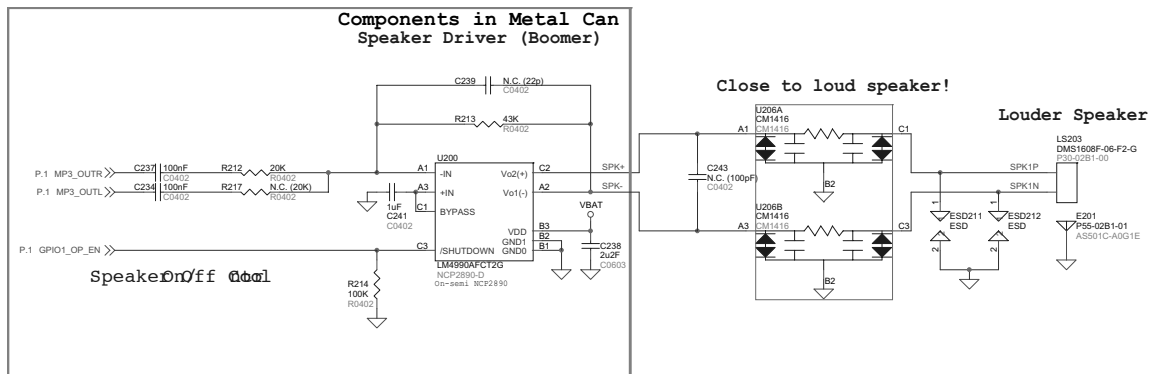


### Audio Problem [Louder SPK problem]

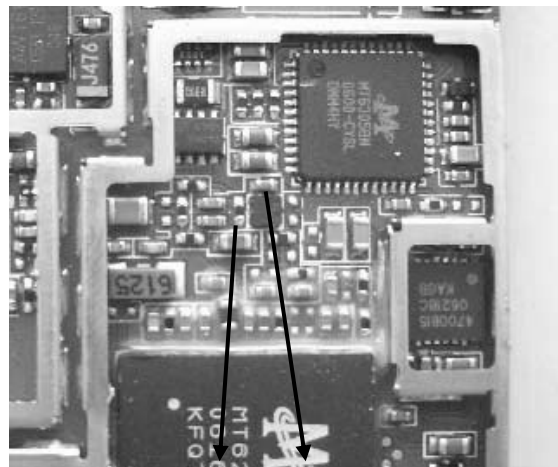




## 4. Troubleshooting

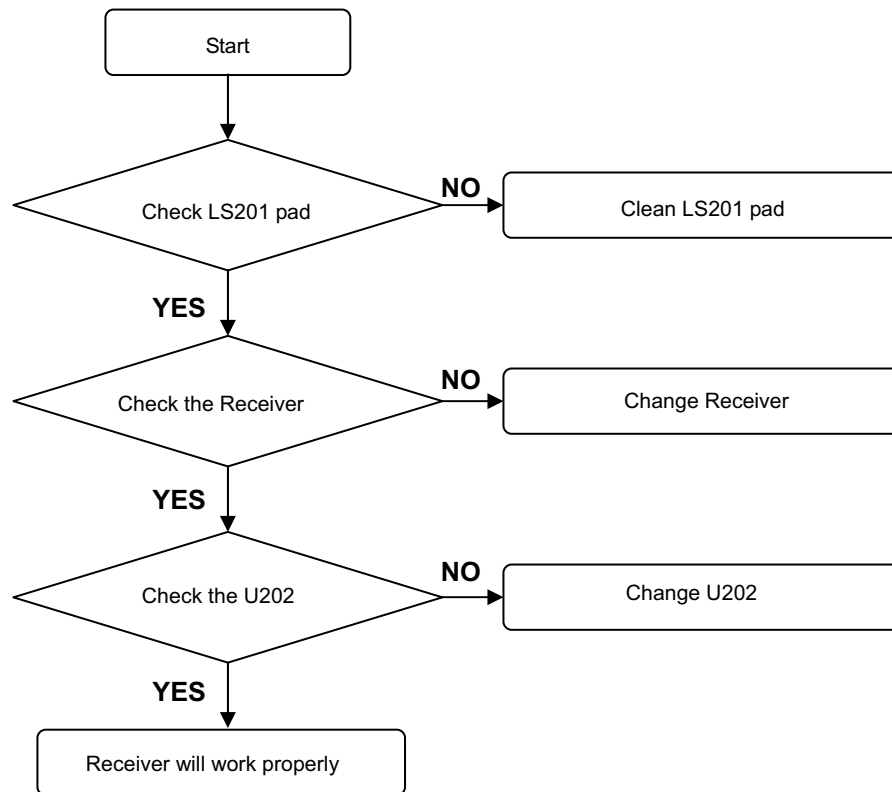


E201 LS203

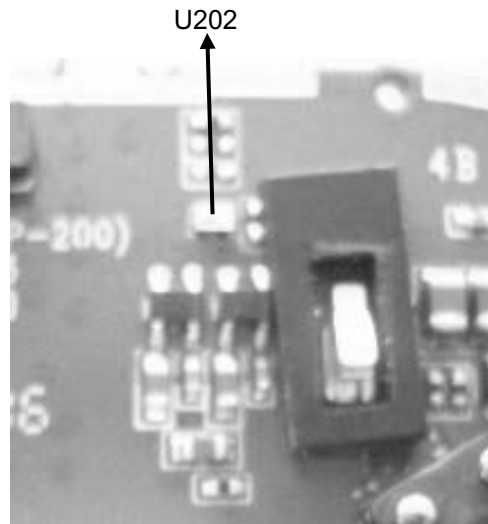
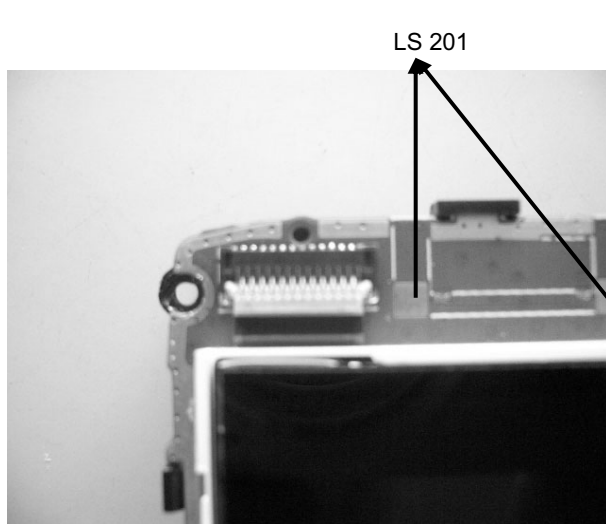
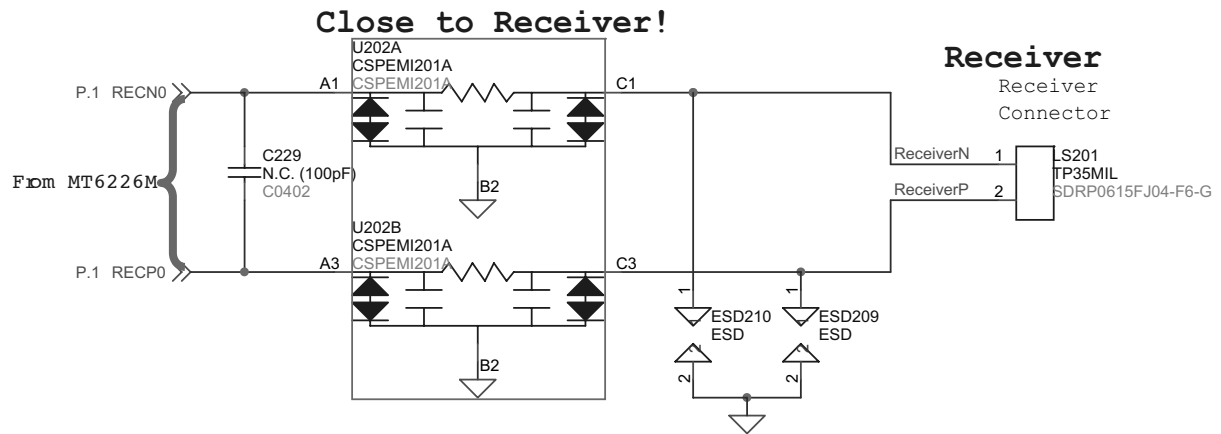


C238 U200

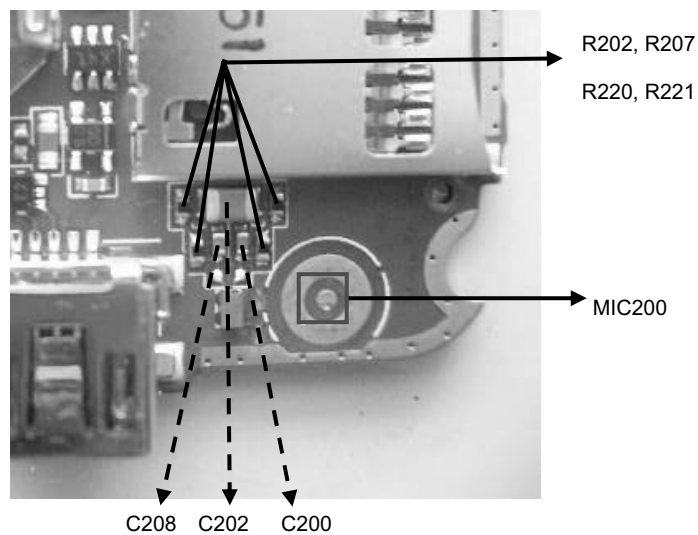
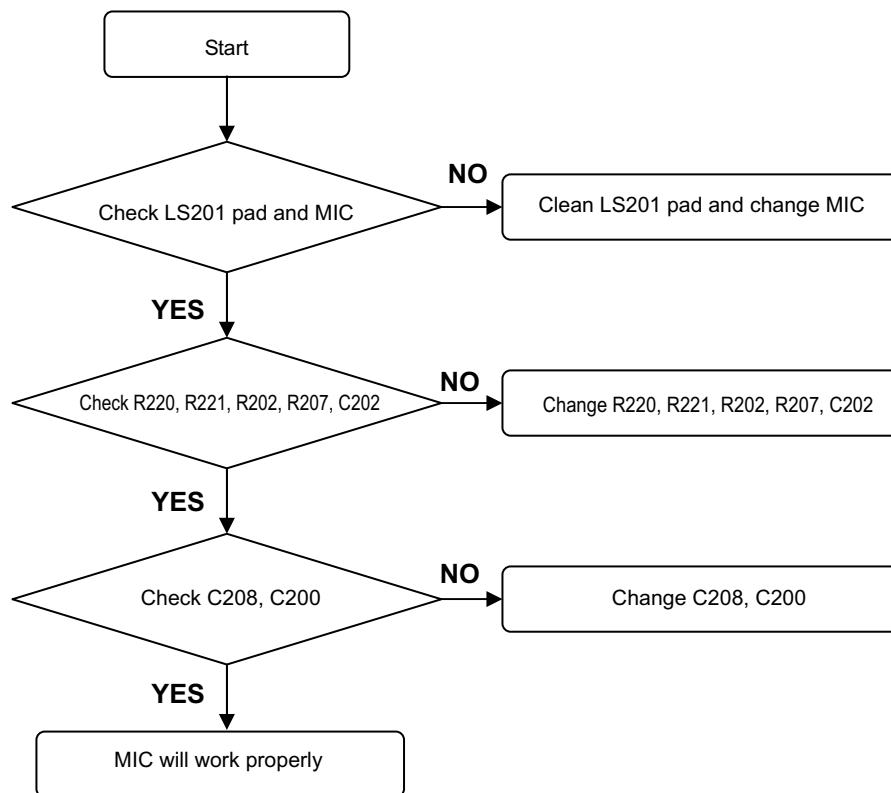
### Audio Problem [Receiver problem]



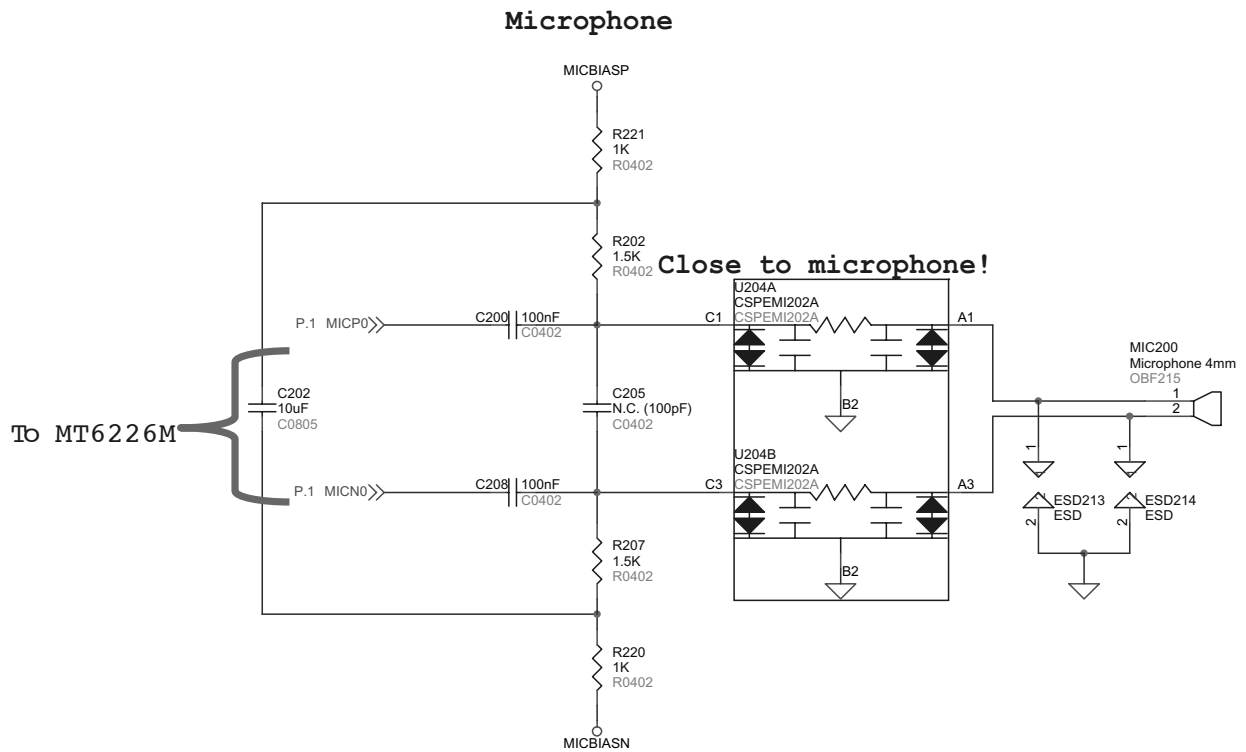
## 4. Troubleshooting



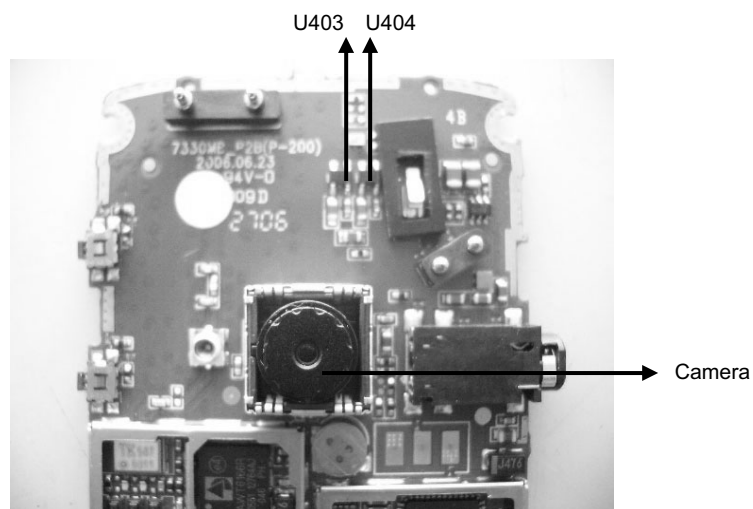
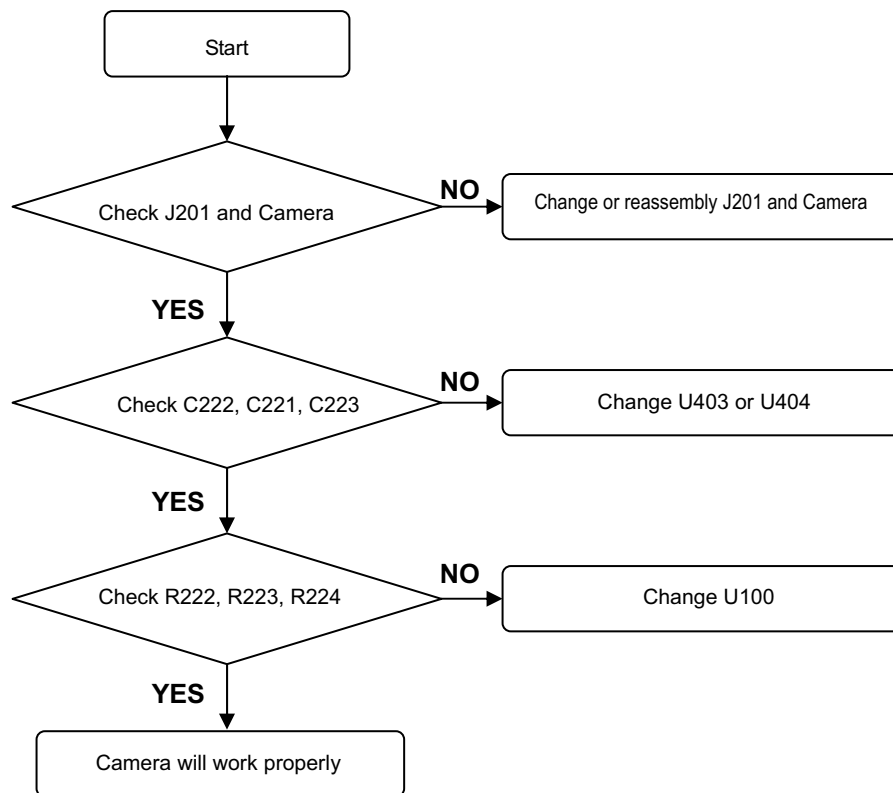
### Audio Problem [MIC problem]



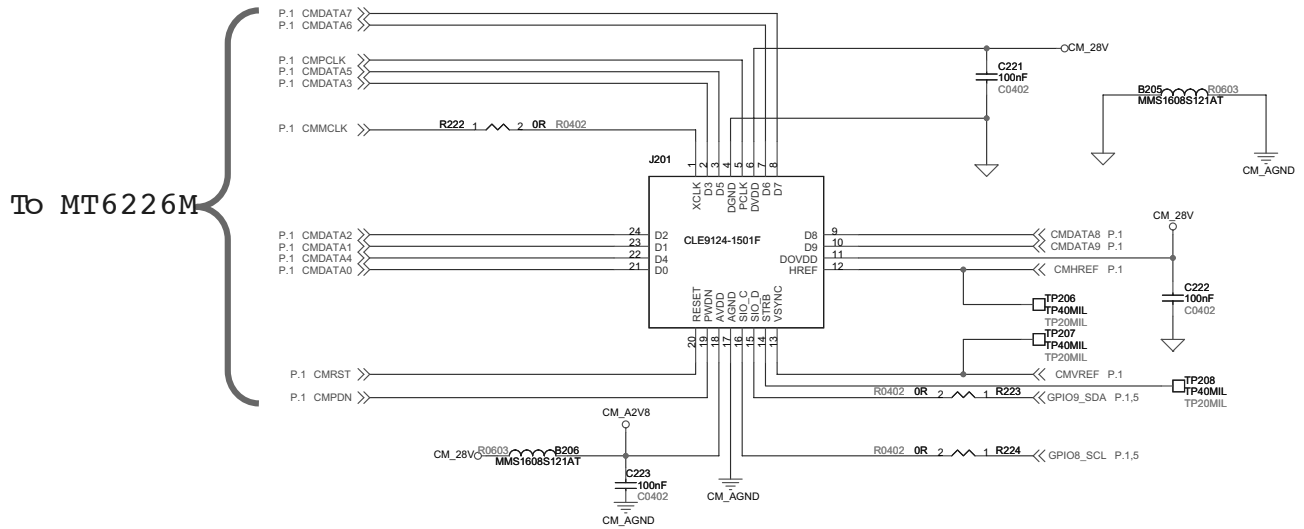
## 4. Troubleshooting



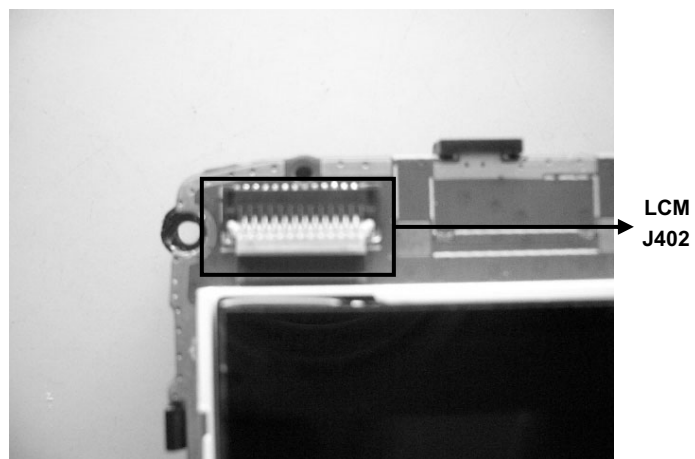
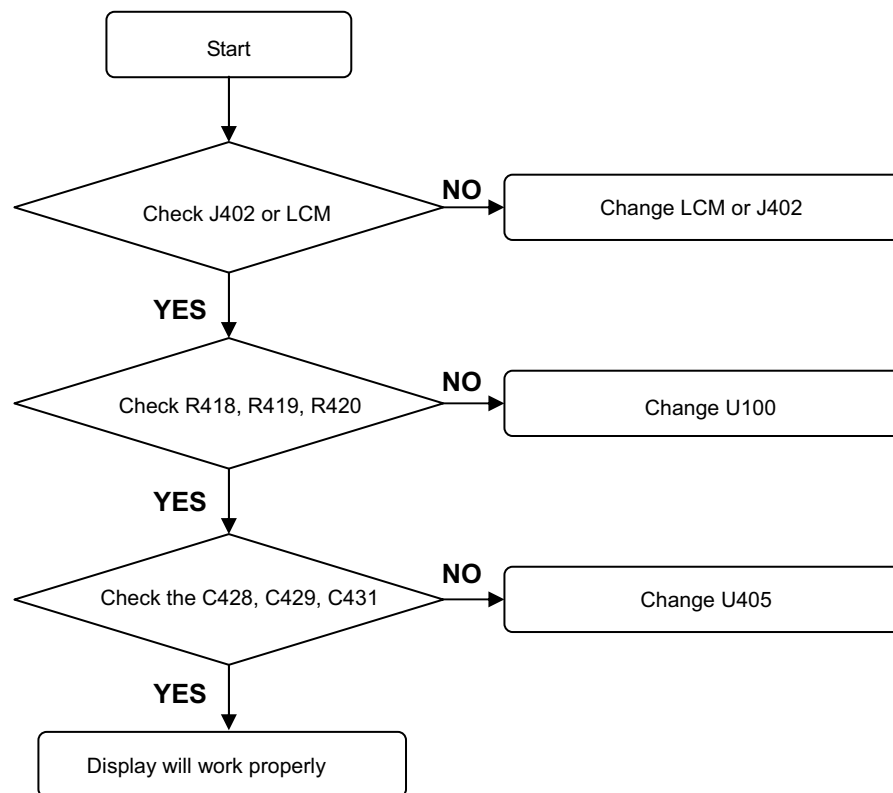
### Camera Problem



## 4. Troubleshooting

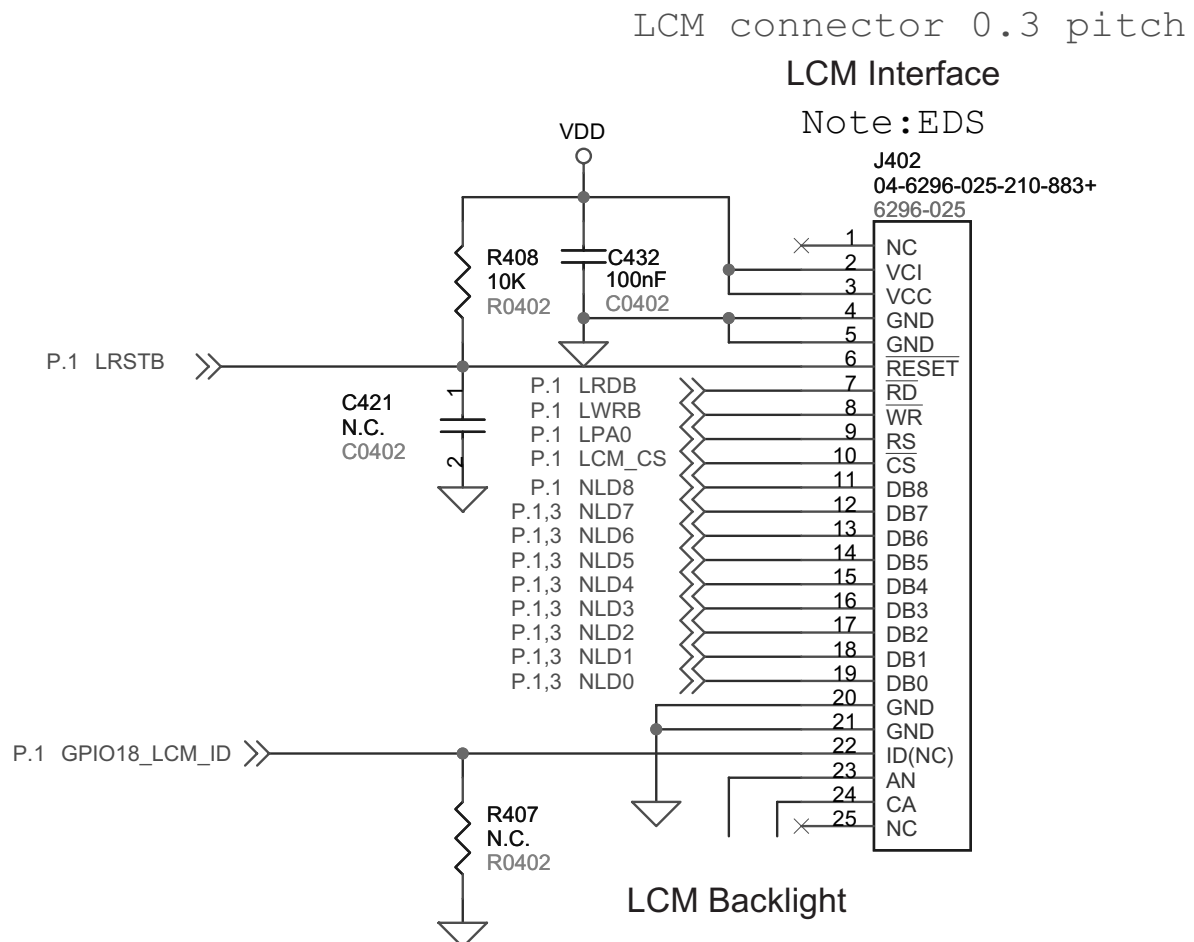


### Display Problem

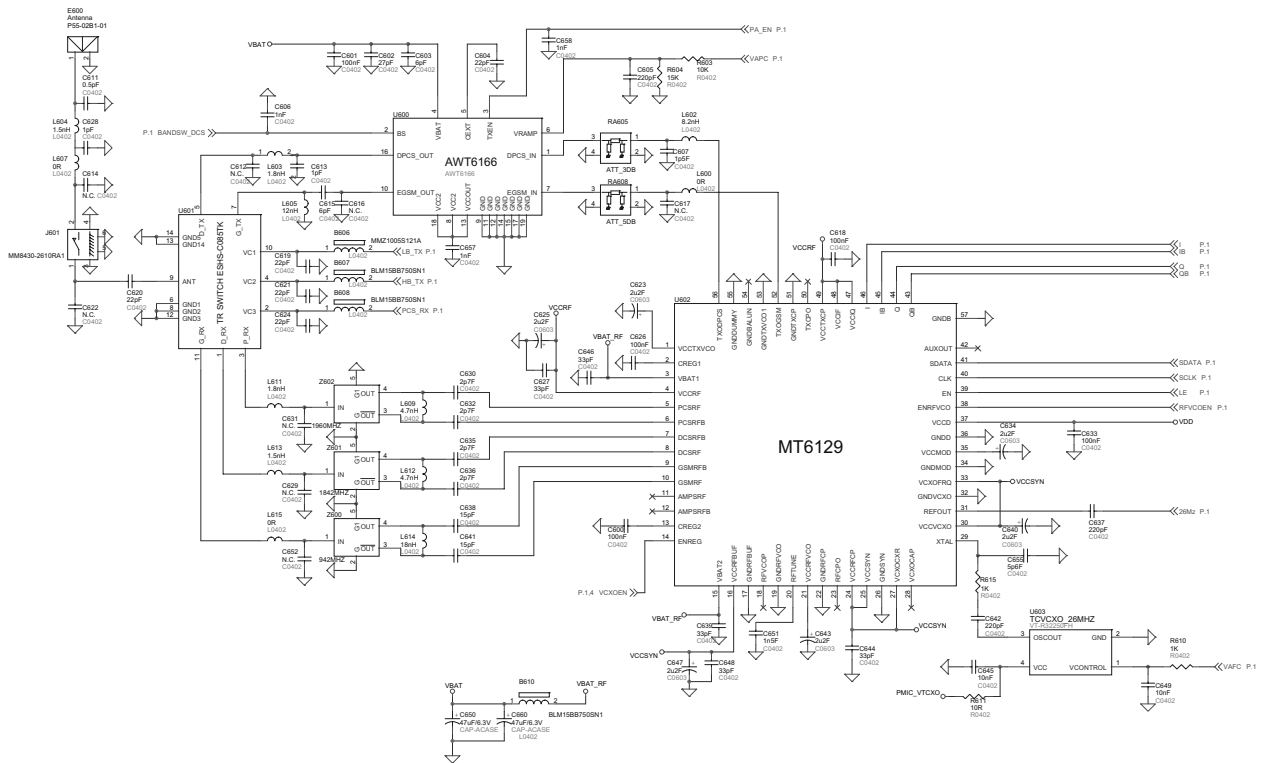


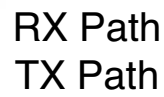


## 4. Troubleshooting

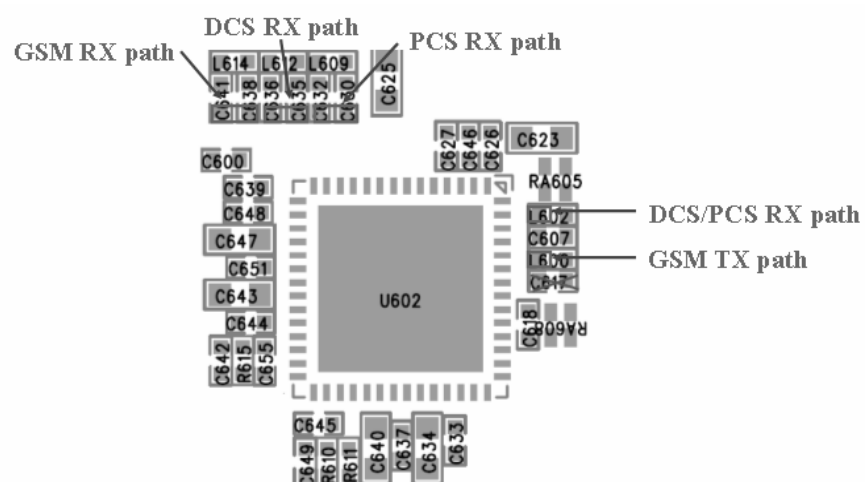


## Network problem



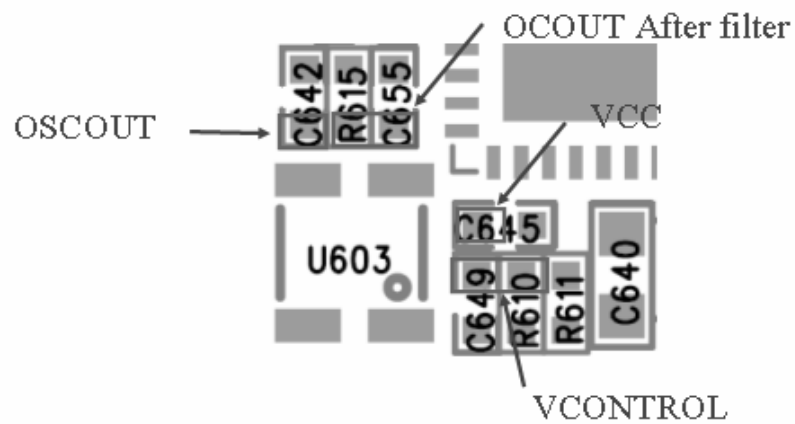


## RF transceiver (U602)



### VCTCXO (U603)

Test point part	Function	Typical value	Description
U603, pin1	VCONTROL	1.38V	Automatic frequency control voltage (AFC)
U603, pin3	OSCOUT	26MHz	Reference frequency output
U603, pin4	VCC	2.8V	Power supply

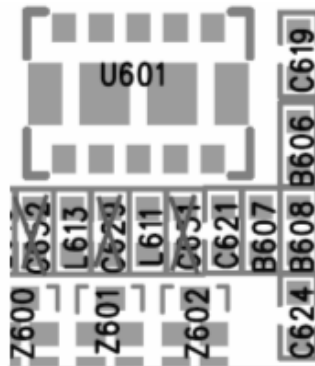


## 4. Troubleshooting

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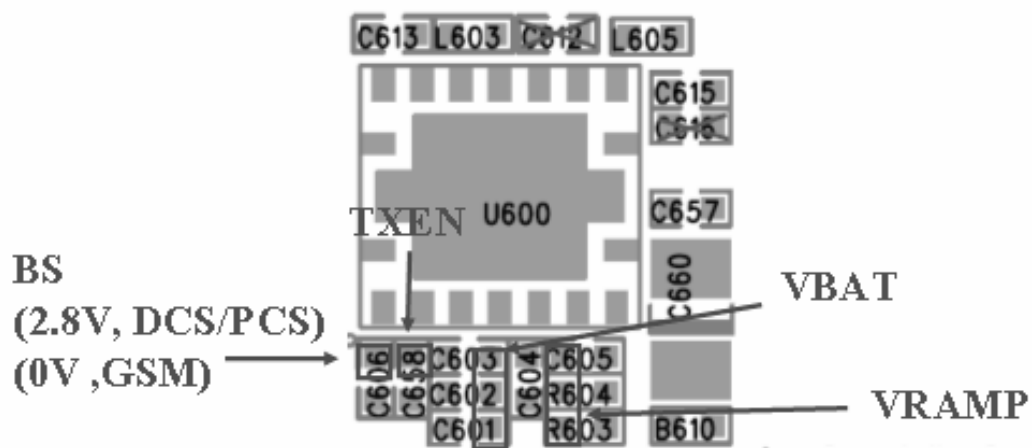
### T/R Switch (U601)

Test point part	Function	Typical value	Description
U601, pin1	D_RX		DCS RX
U601, pin2	VC3	2.8V	PCS RX control signal
U601, pin3	P_RX		PCS RX
U601, pin4	VC2	2.8V	DCS, PCS TX control signal
U601, pin5	D_TX		DCS PCS TX
U601, pin7	G_TX		GSM TX
U601, pin9	ANT		Antenna port
U601, pin10	VC1	2.8V	EGSM TX control signal
U601, pin11	G_RX		GSM RX



### PA module (U600)

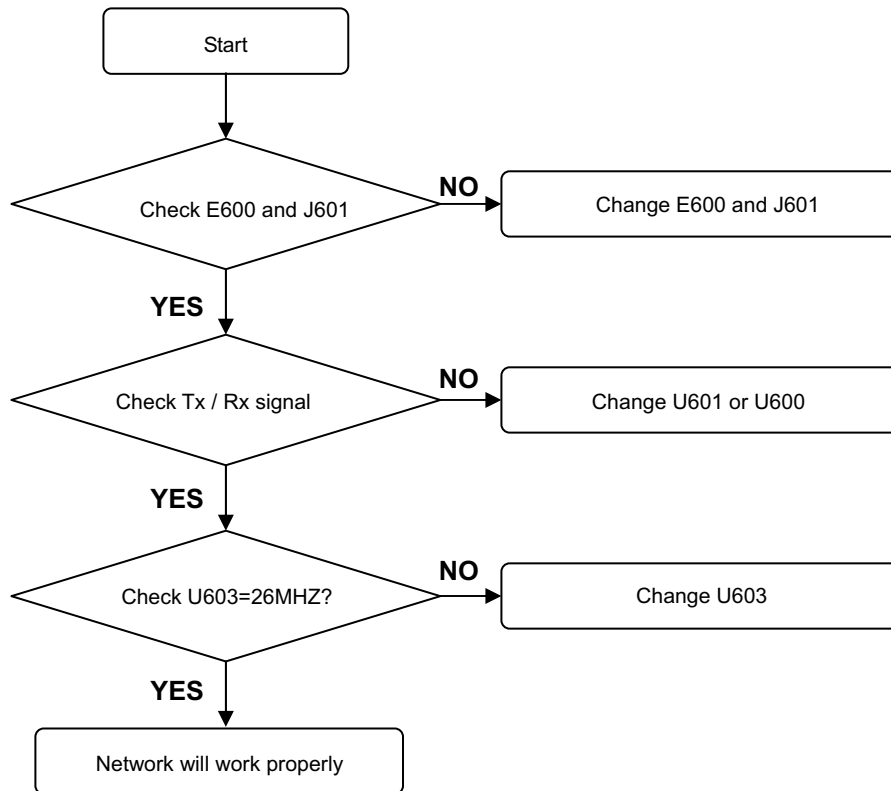
Test point part	Function	Typical value	Description
U600, pin1	DPCS_IN		DCS PCS RF input
U600, pin2	BS	2.8V	Band select logic input
U600, pin3	TXEN	2.8V	TX enable logic input
U600, pin4	VBAT	3.8V(3.4~4.2V)	Battery supply connection
U600, pin5	CEXT		by pass
U600, pin6	VRAMP		Analog signal used to control the output power
U600, pin7	EGSM_IN		EGSM RF input
U600, pin10	EGSM_OUT		EGSM RF output
U600, pin16	DPCS_OUT		DCS PCS RF output



## 4. Troubleshooting

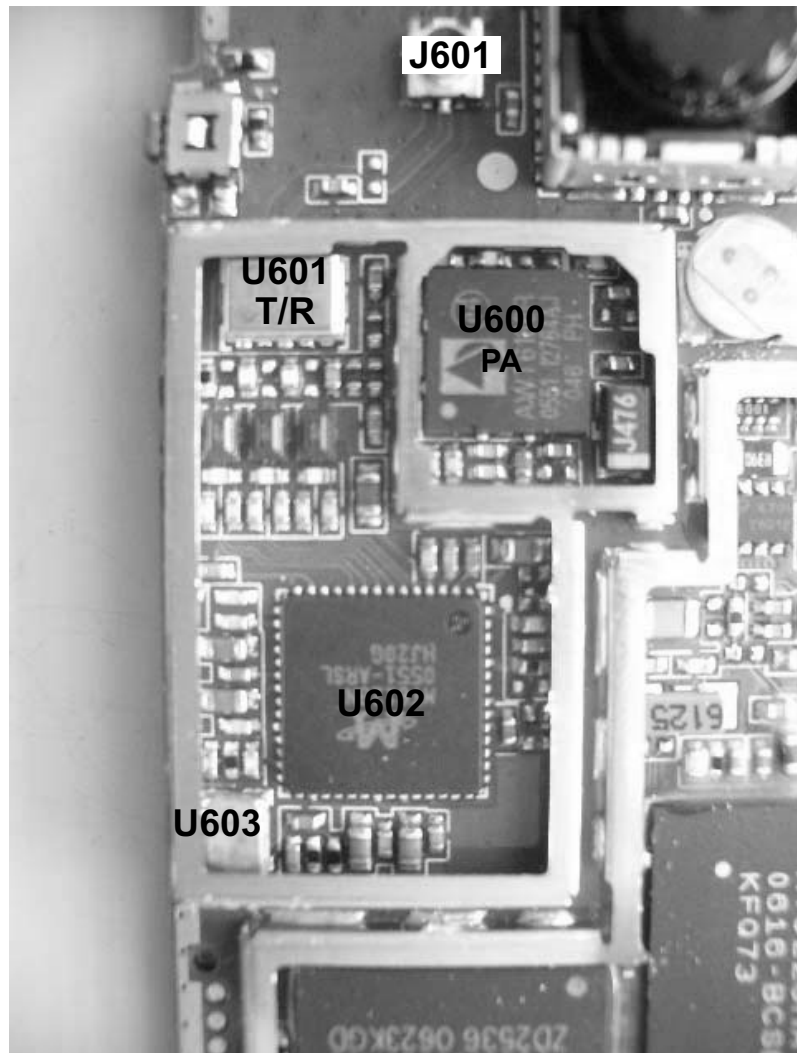
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### Network Problem



## 4. Troubleshooting

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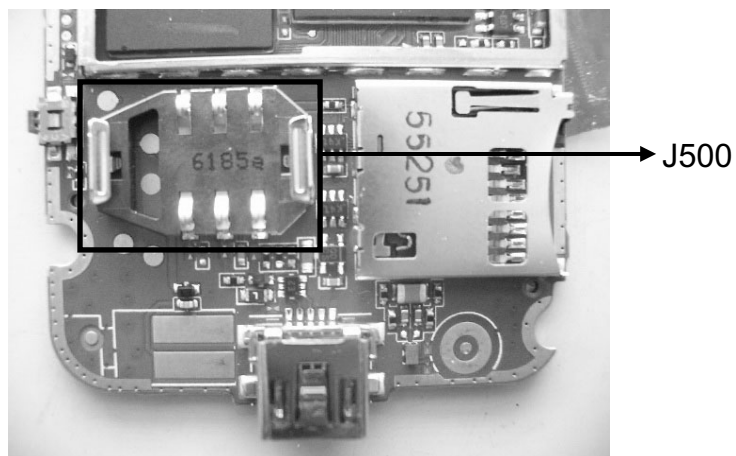
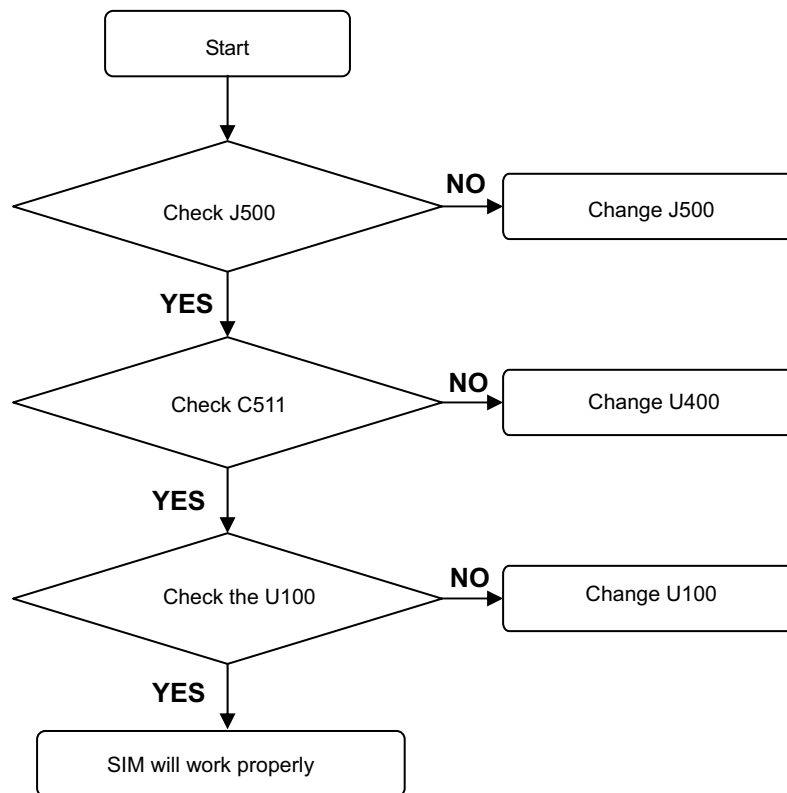




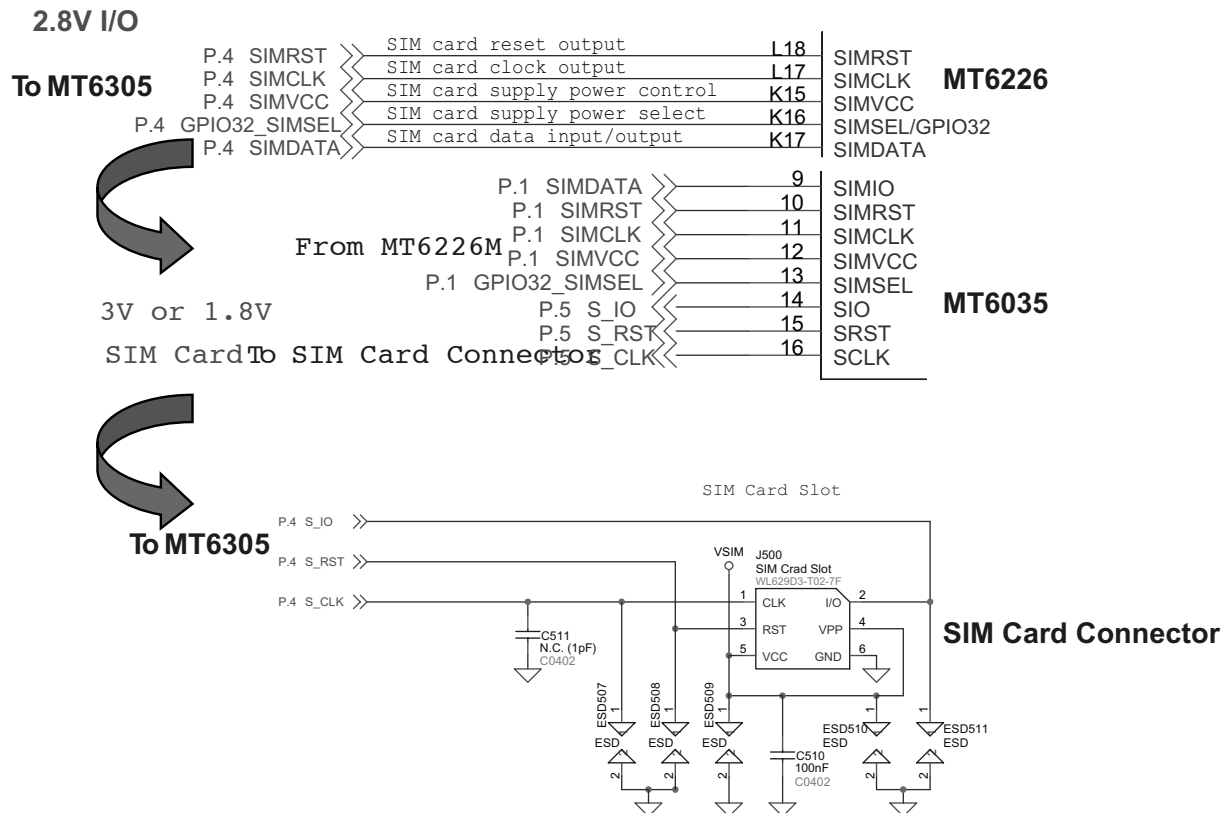
## 4. Troubleshooting

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### SIM Card Problem



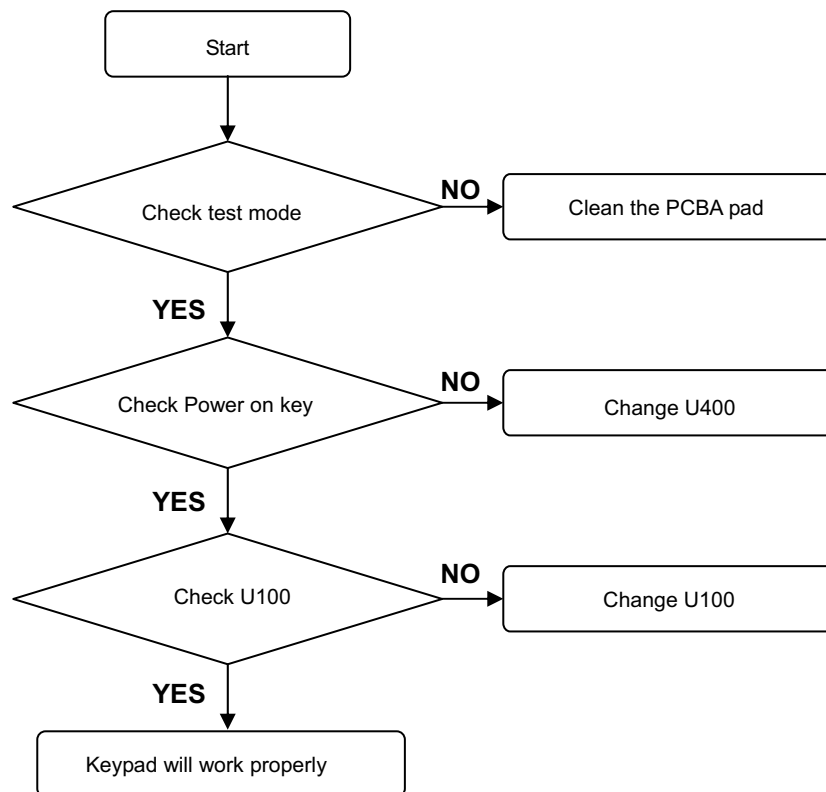
## 4. Troubleshooting

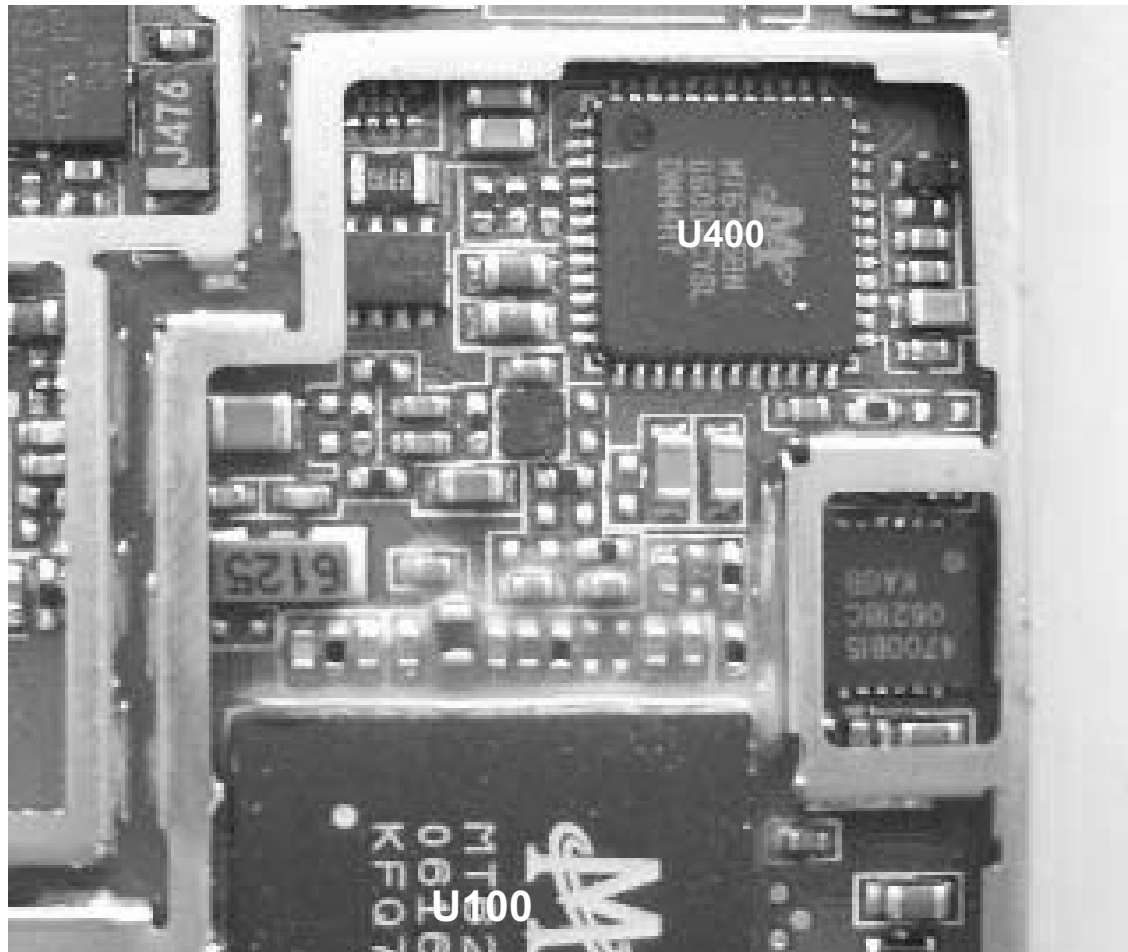


## 4. Troubleshooting

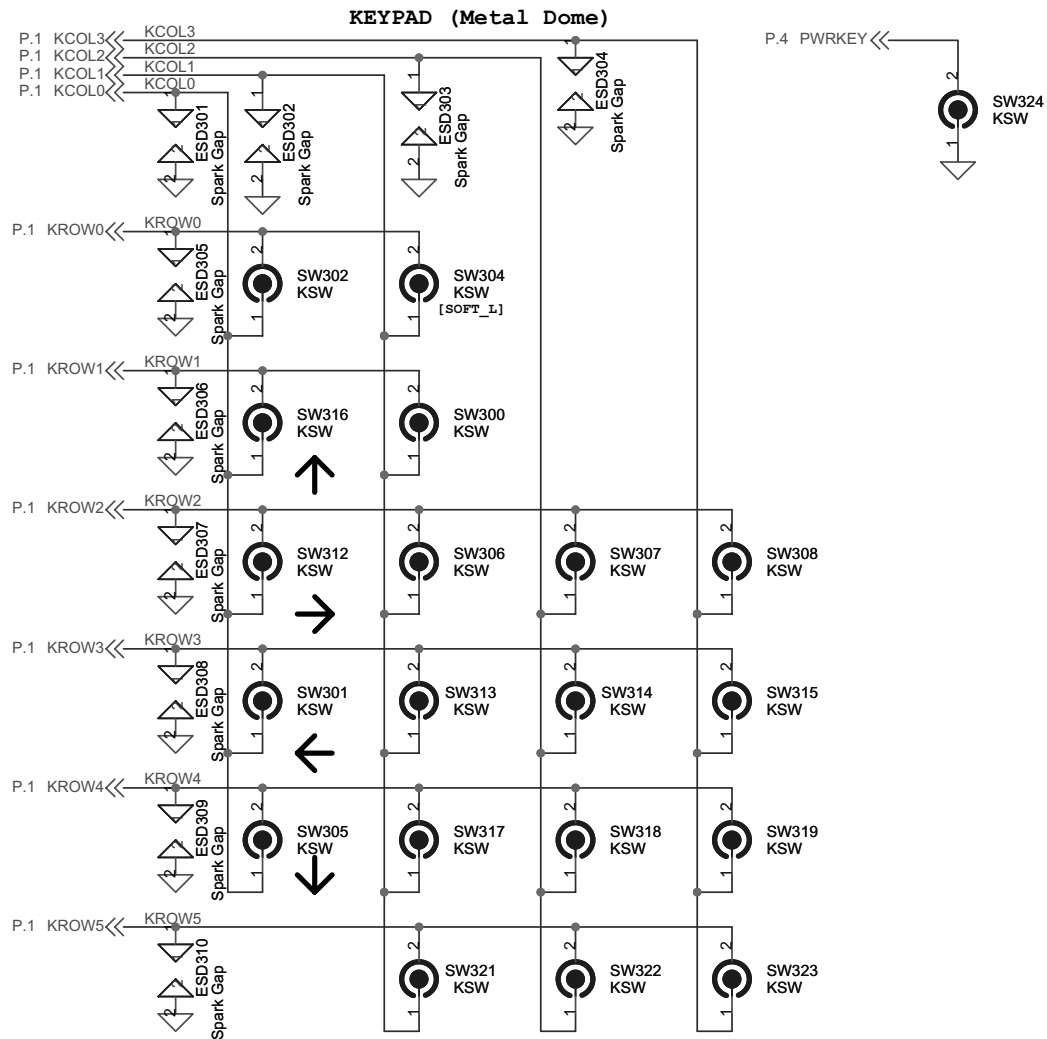
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### Keypad Problem



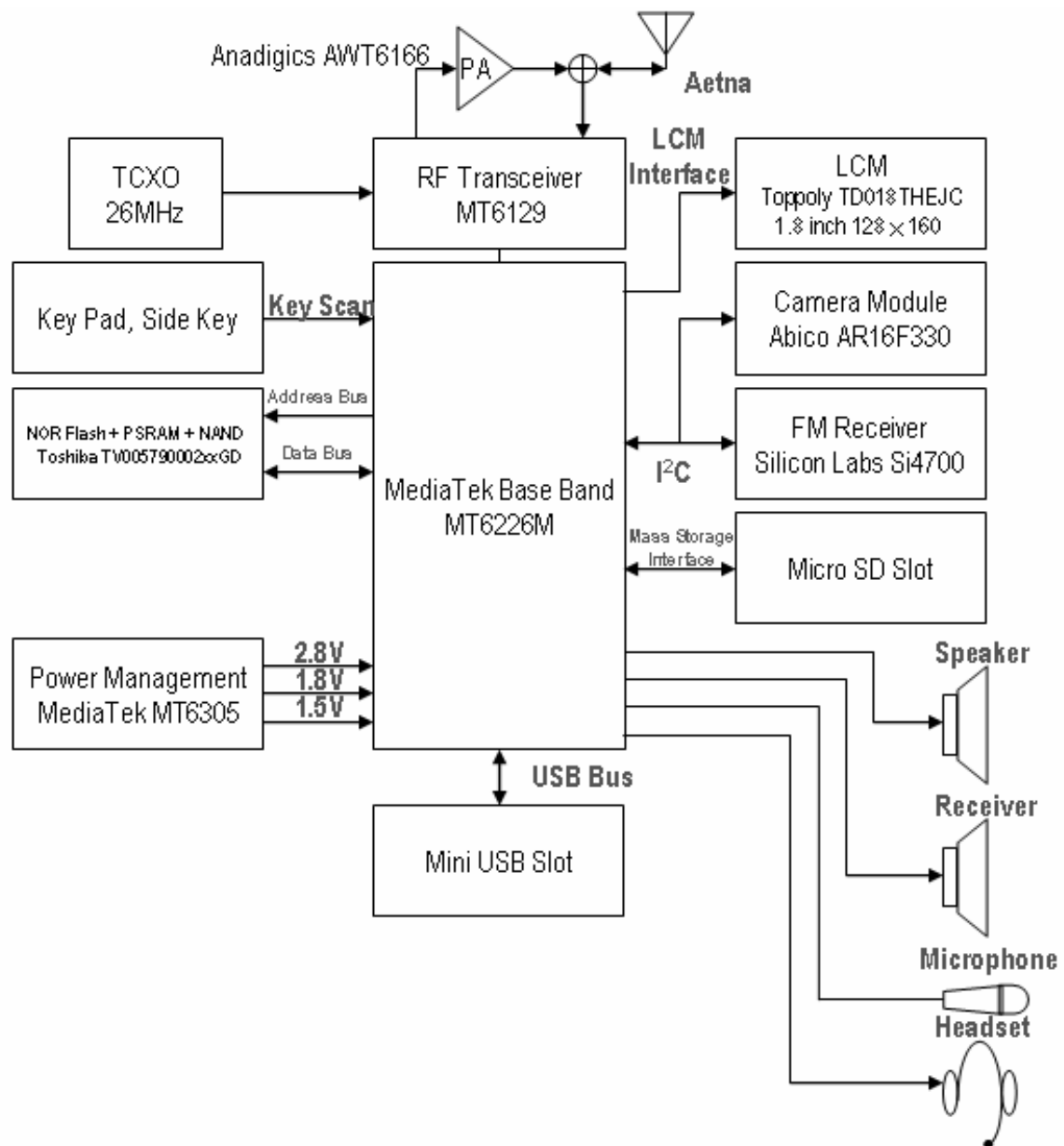


## 4. Troubleshooting



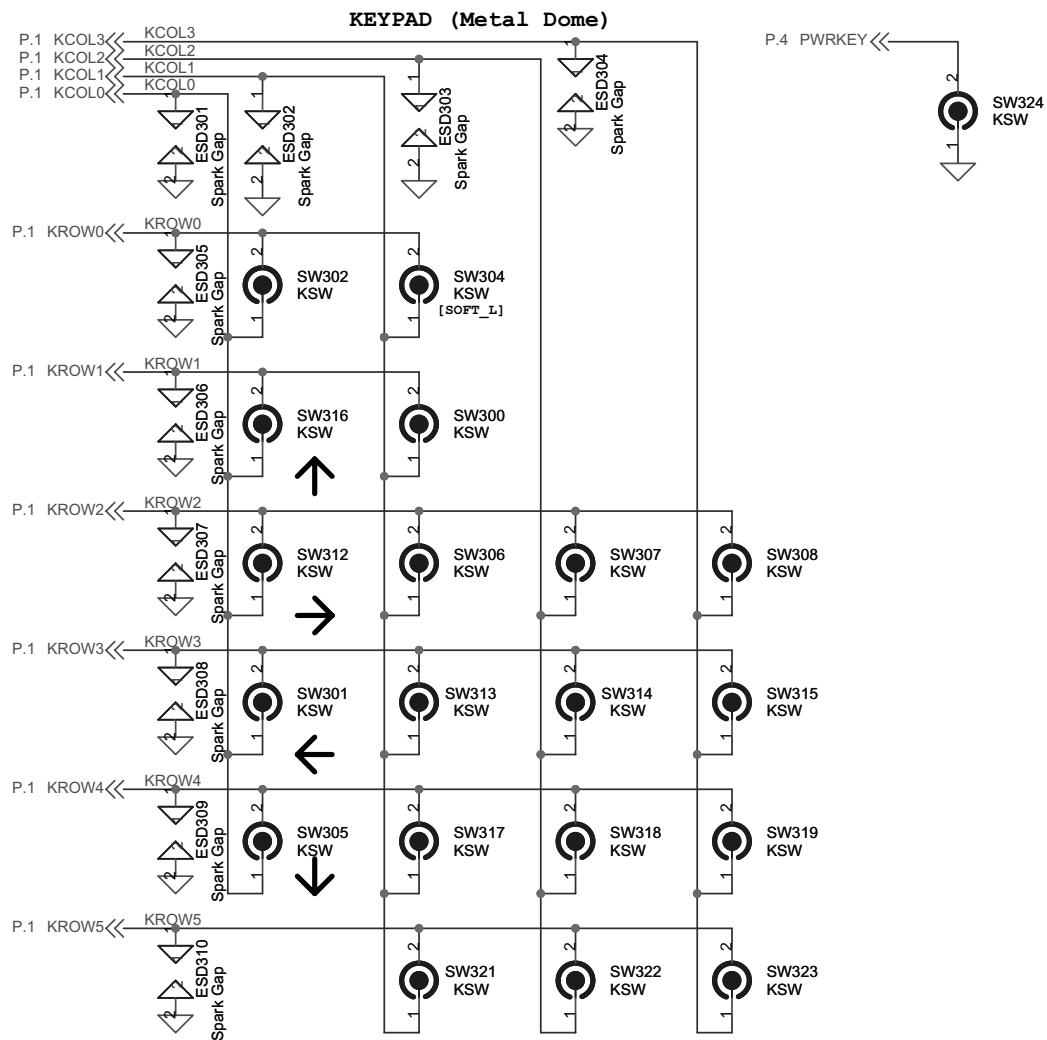
## 5. Circuit Diagrams

### SYSTEM BLOCK DIAGRAM

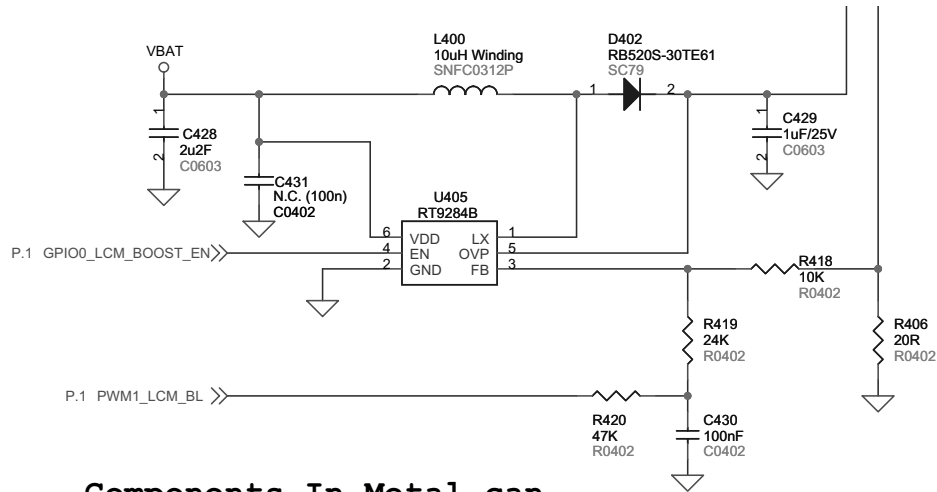


## 5. Circuit Diagrams

### Keypad Switches and Key Backlight Illumination

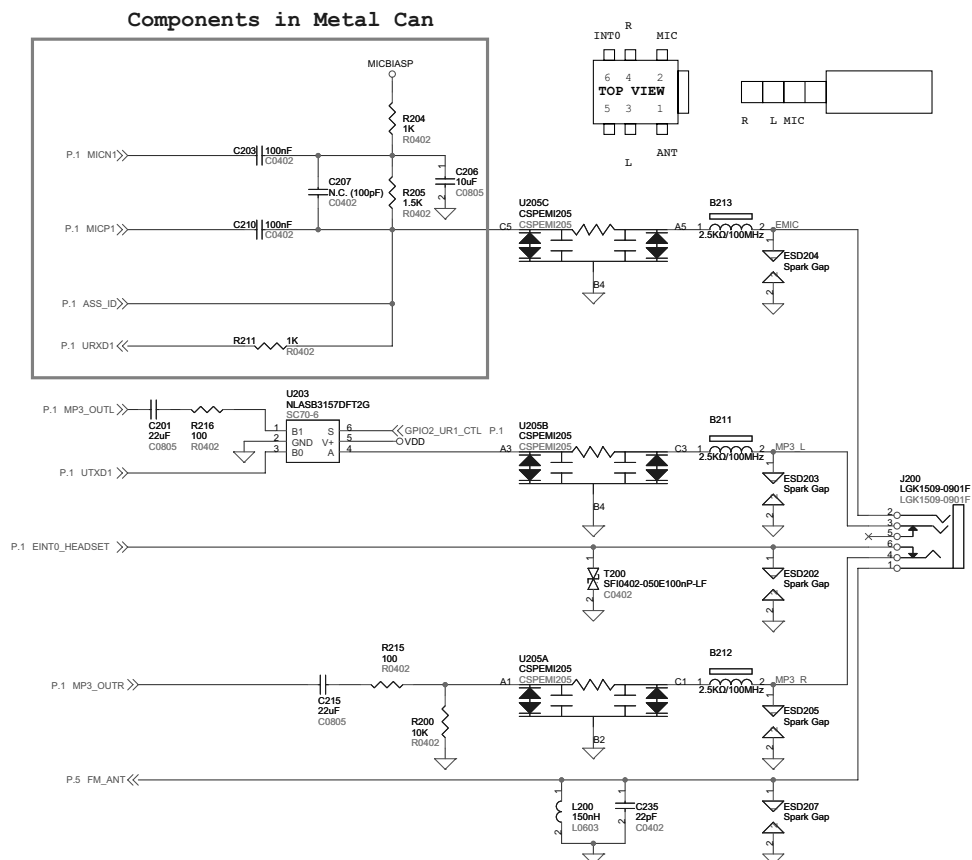


### LCM Backlight Circuit



Components In Metal can

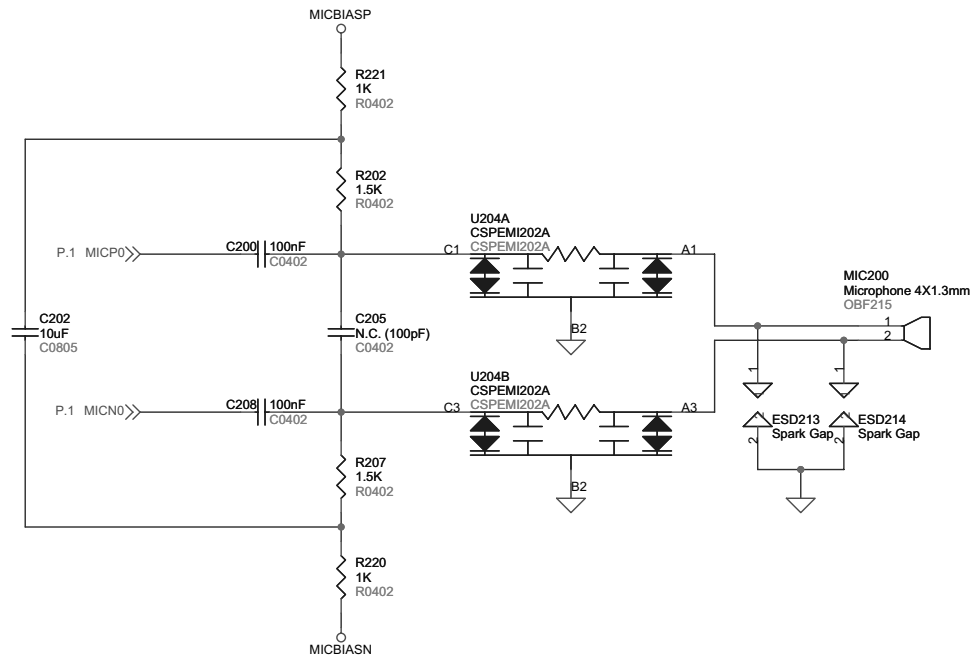
### Earphone Jack



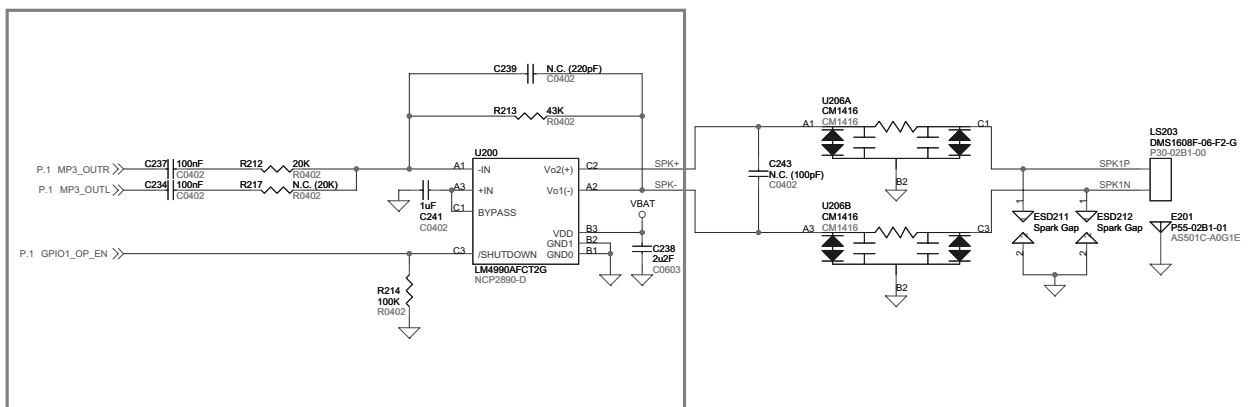


## 5. Circuit Diagrams

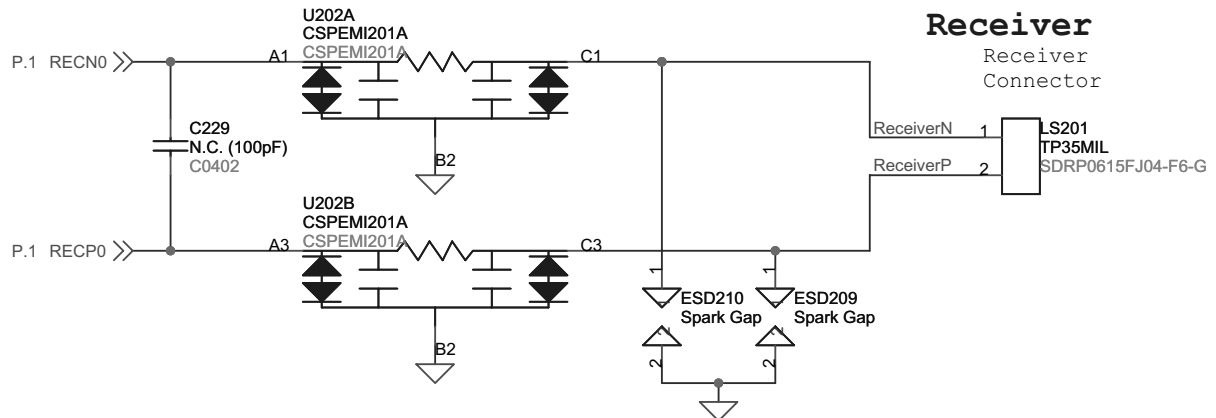
### Microphone



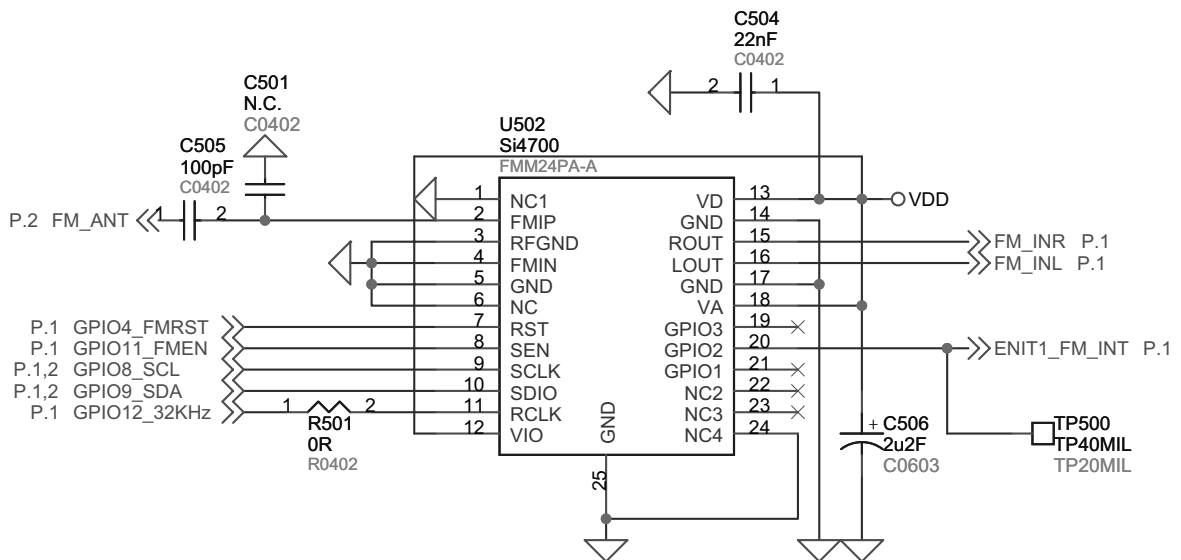
### Speaker



### Receiver

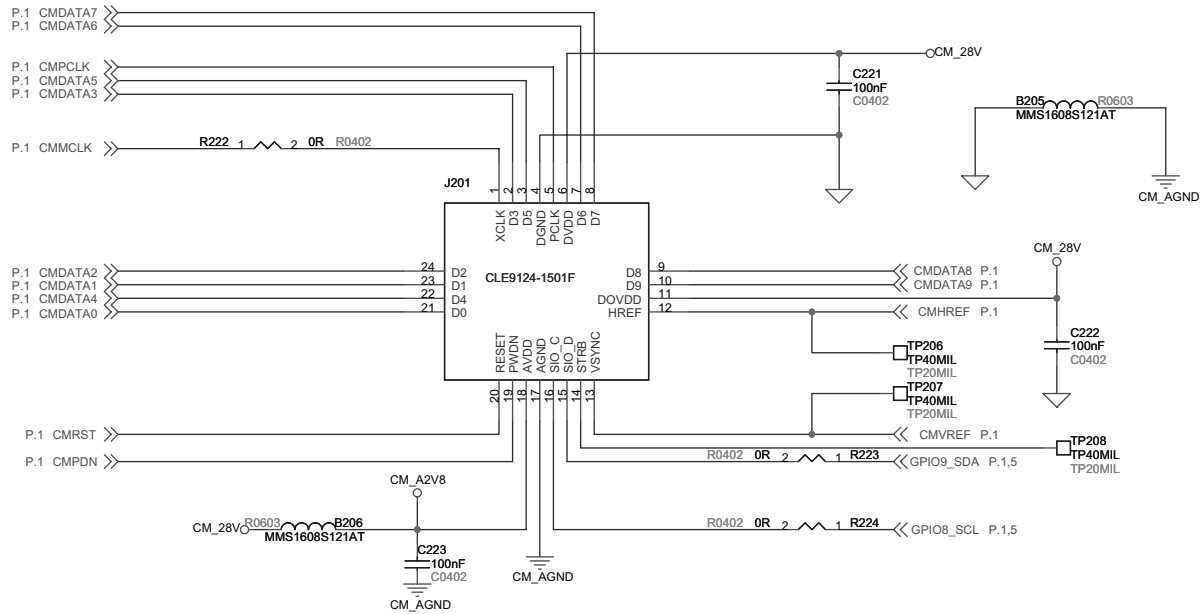


### FM Receiver

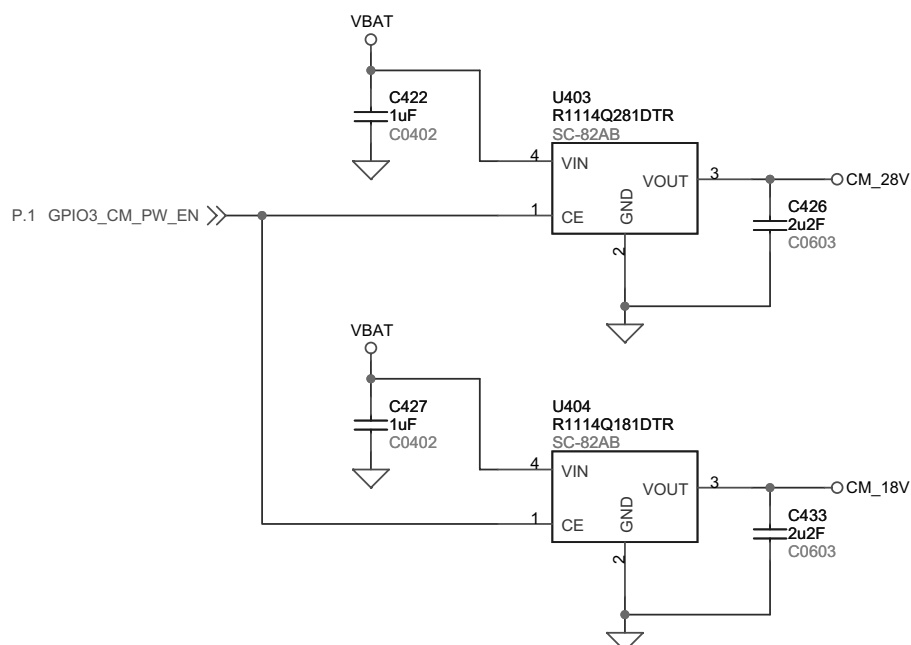


## 5. Circuit Diagrams

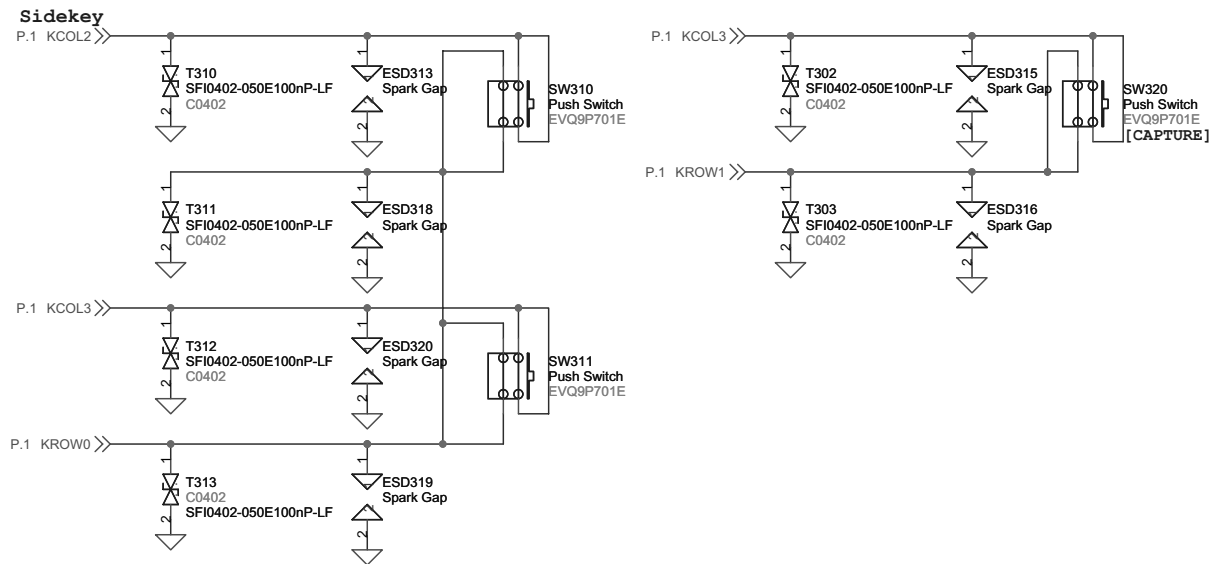
### Camera Module



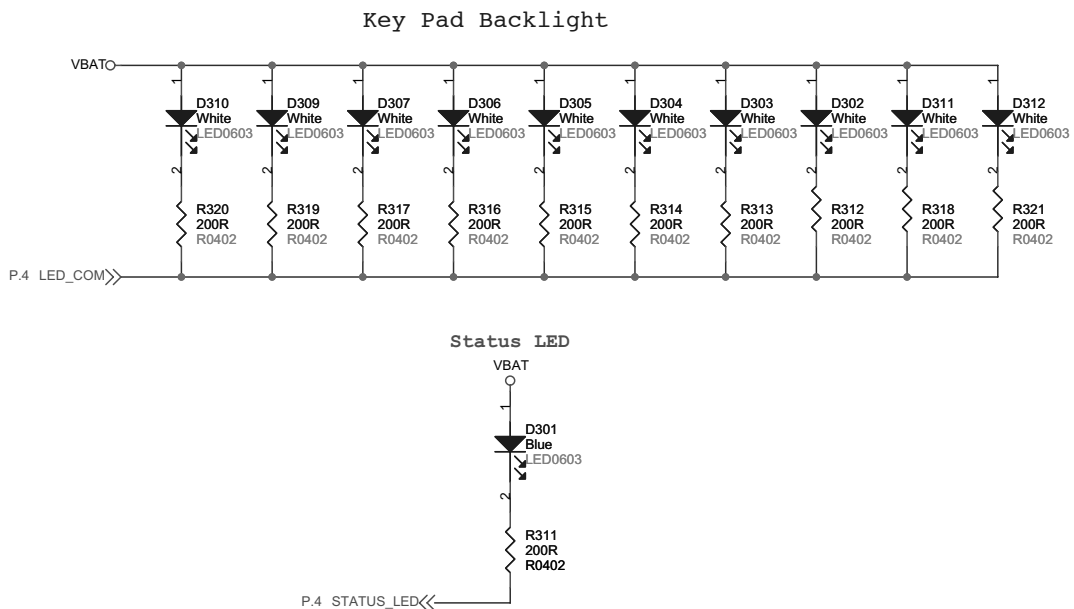
### LDO for Camera Module



### Side Key Switch

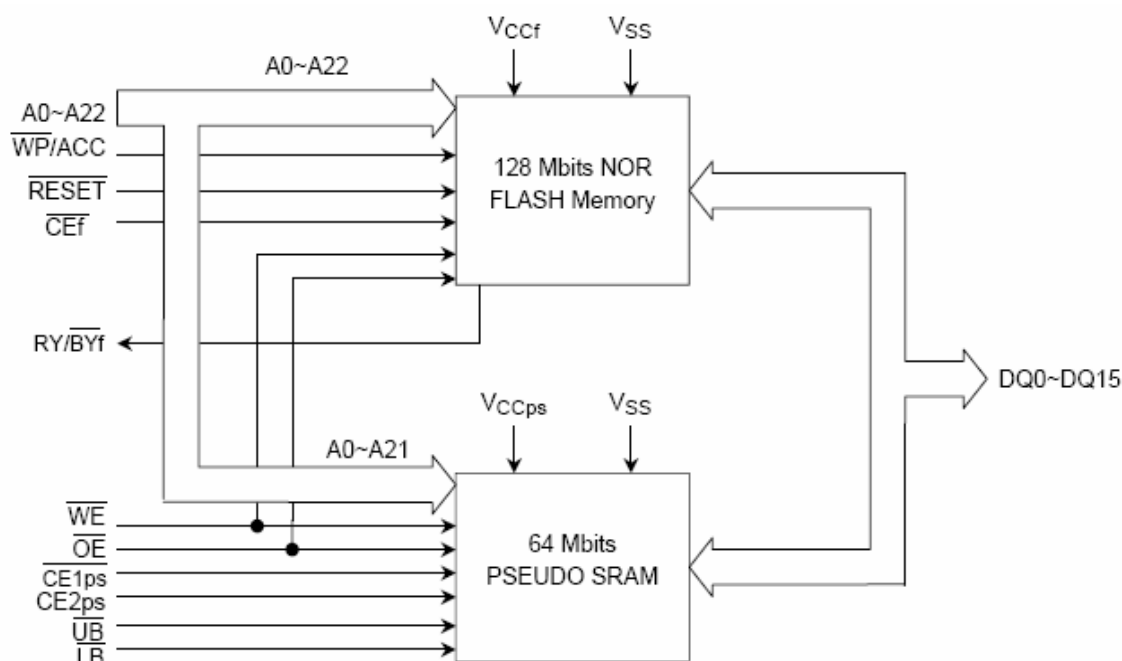


### Keypad Backlight Illumination and Status LED



## 5. Circuit Diagrams

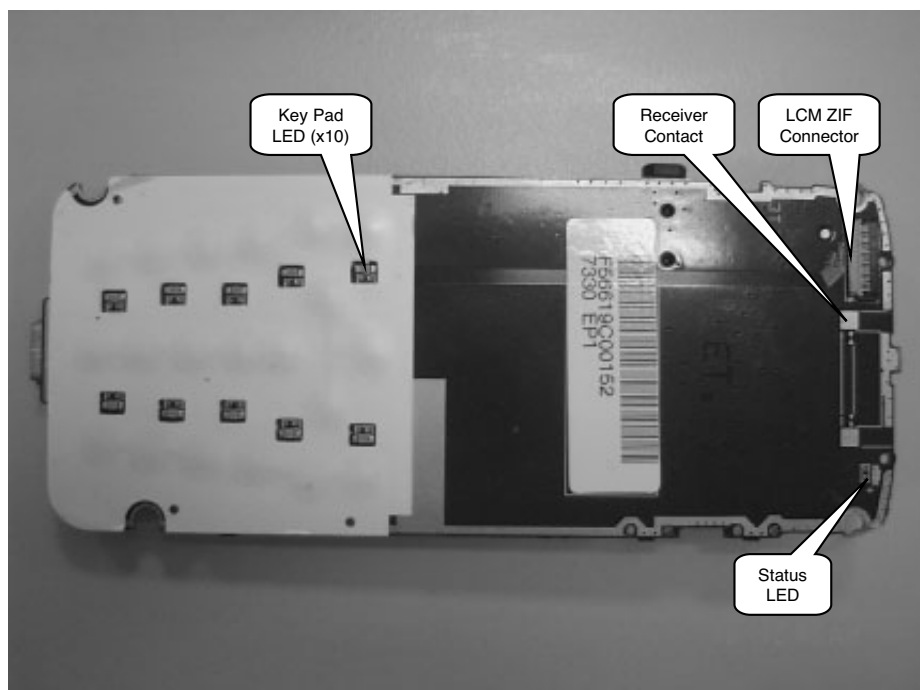
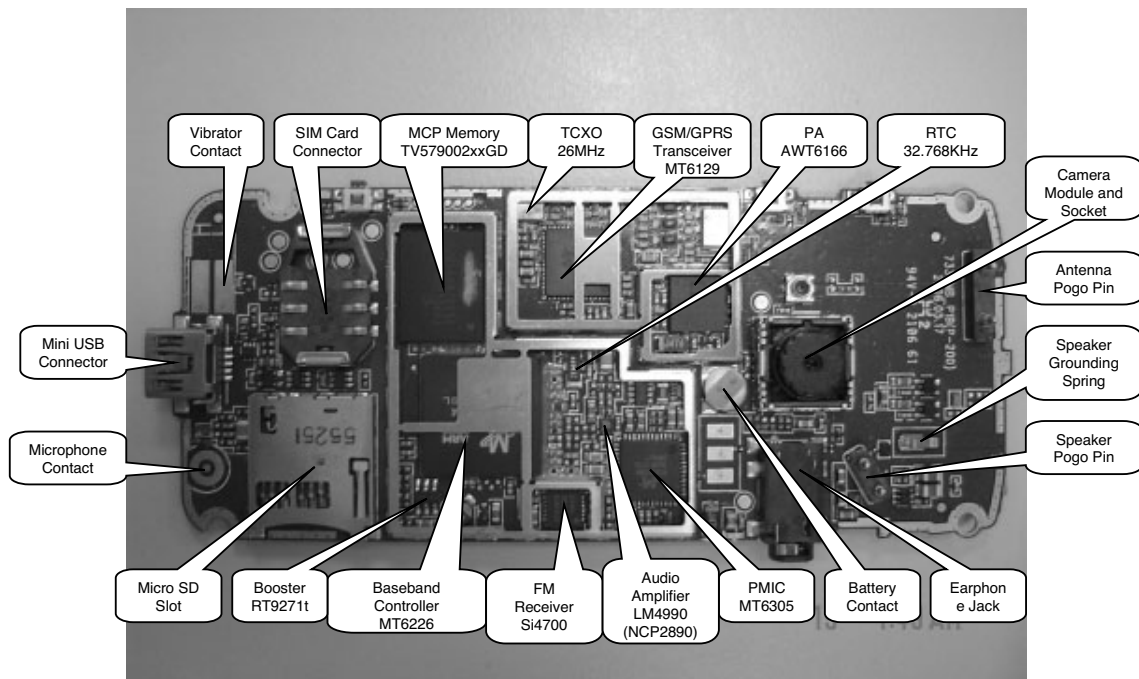
### Memory



### PIN NAMES

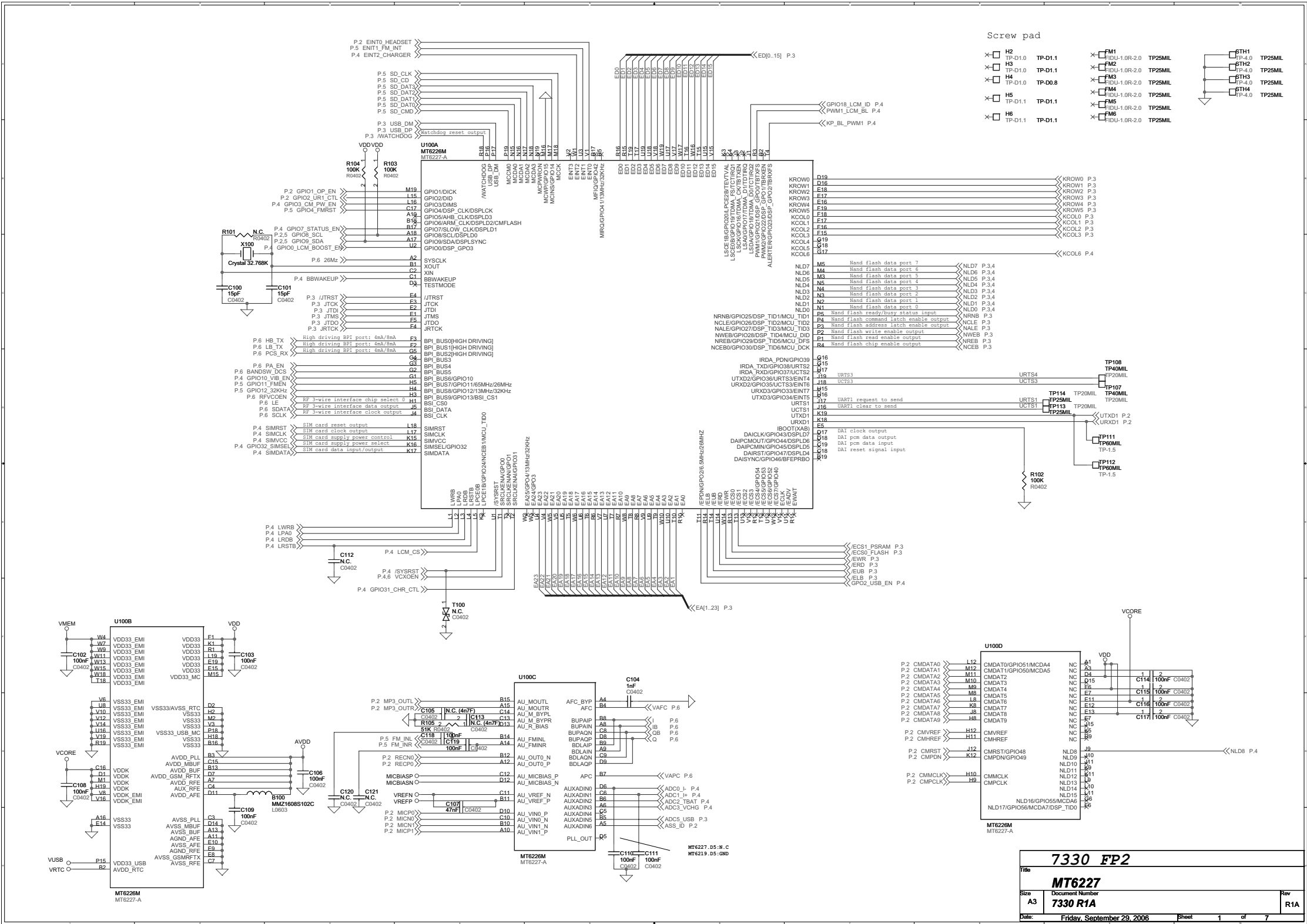
A0 to A22	Address inputs for Pseudo SRAM & Nor Flash Memory
DQ0 to DQ15	Data inputs / outputs for Pseudo SRAM & Nor Flash Memory
I/O1 to I/O8	Data inputs / outputs for Nand E <sup>2</sup> PROM
CE1ps, CE2ps	Chip enable inputs for Pseudo SRAM
CEf	Chip enable input for Nor Flash Memory
CEn	Chip enable input for Nand E <sup>2</sup> PROM
OE	Output enable input for Pseudo SRAM & Nor Flash Memory
WE	Write enable input for Pseudo SRAM & Nor Flash Memory
REn	Read enable input for Nand E <sup>2</sup> PROM
WEn	Write enable input for Nand E <sup>2</sup> PROM
LB, UB	Data byte control inputs for Pseudo SRAM
CLE	Command latch enable input for Nand E <sup>2</sup> PROM
ALE	Address latch enable input for Nand E <sup>2</sup> PROM
WP/ACC	Write protect / program acceleration input for Nor Flash Memory
Wpn	Write protect input for Nand E <sup>2</sup> PROM
RESET	Hardware reset input for Nor Flash Memory
RY/BYf	Ready / Busy output for Nor Flash Memory
RY/BYn	Ready / Busy output for Nand E <sup>2</sup> PROM
VCCps	Power supply for Pseudo SRAM
VCCf	Power supply for Nor Flash Memory
VCCn	Power supply for Nand E <sup>2</sup> PROM
VSS	Ground
NC	Not connected

### Component place information



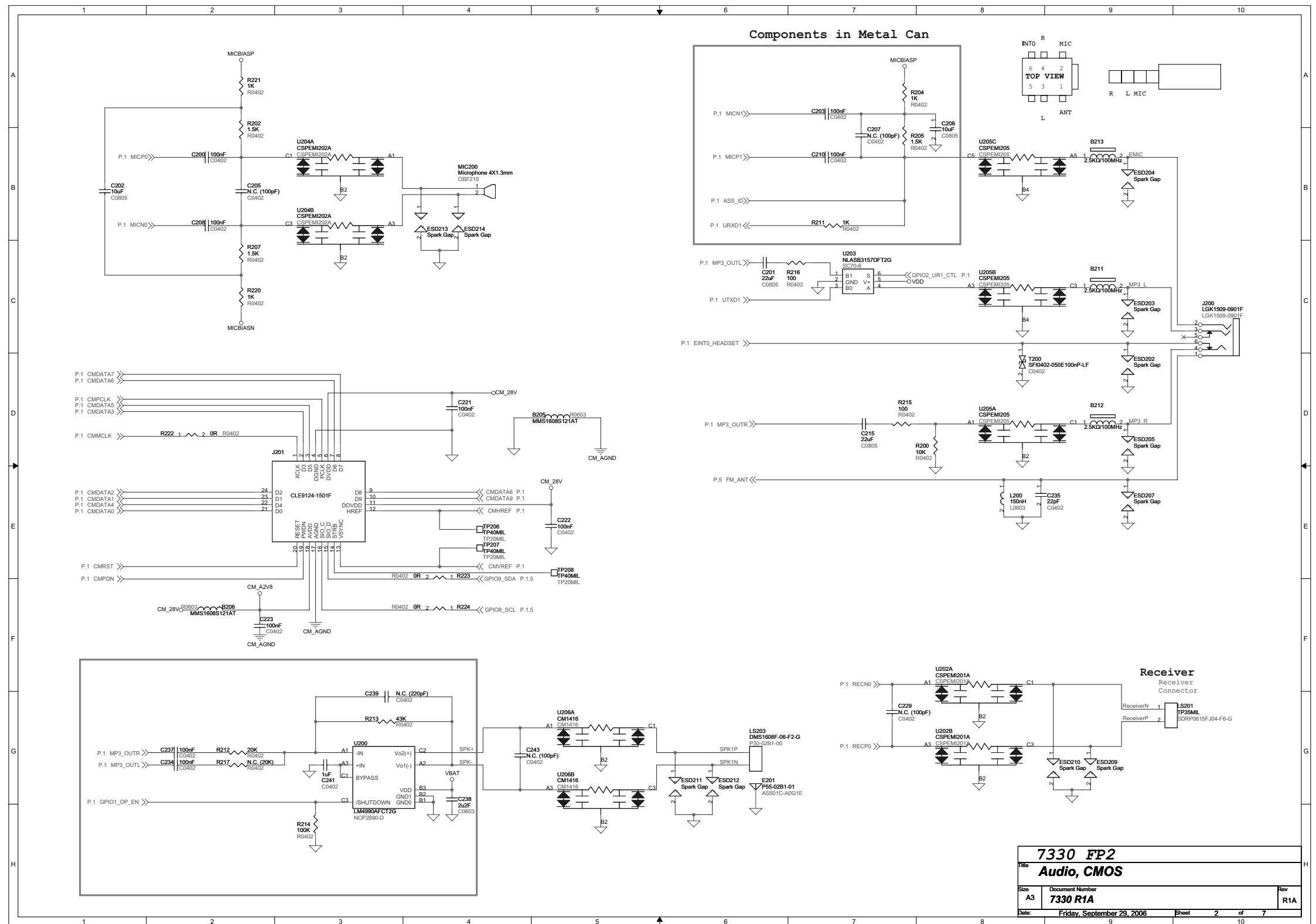
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5. CIRCUIT DIAGRAMS

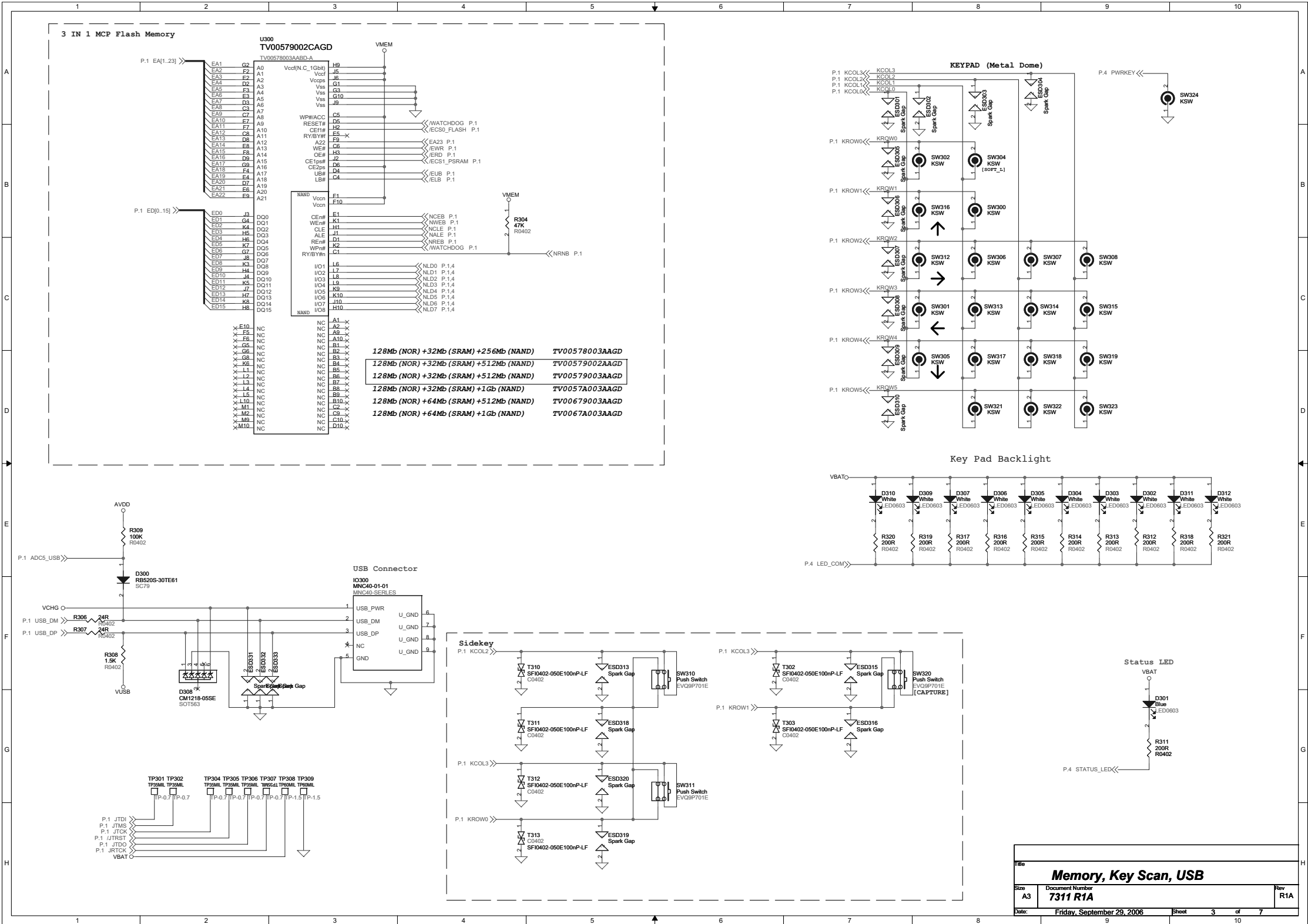




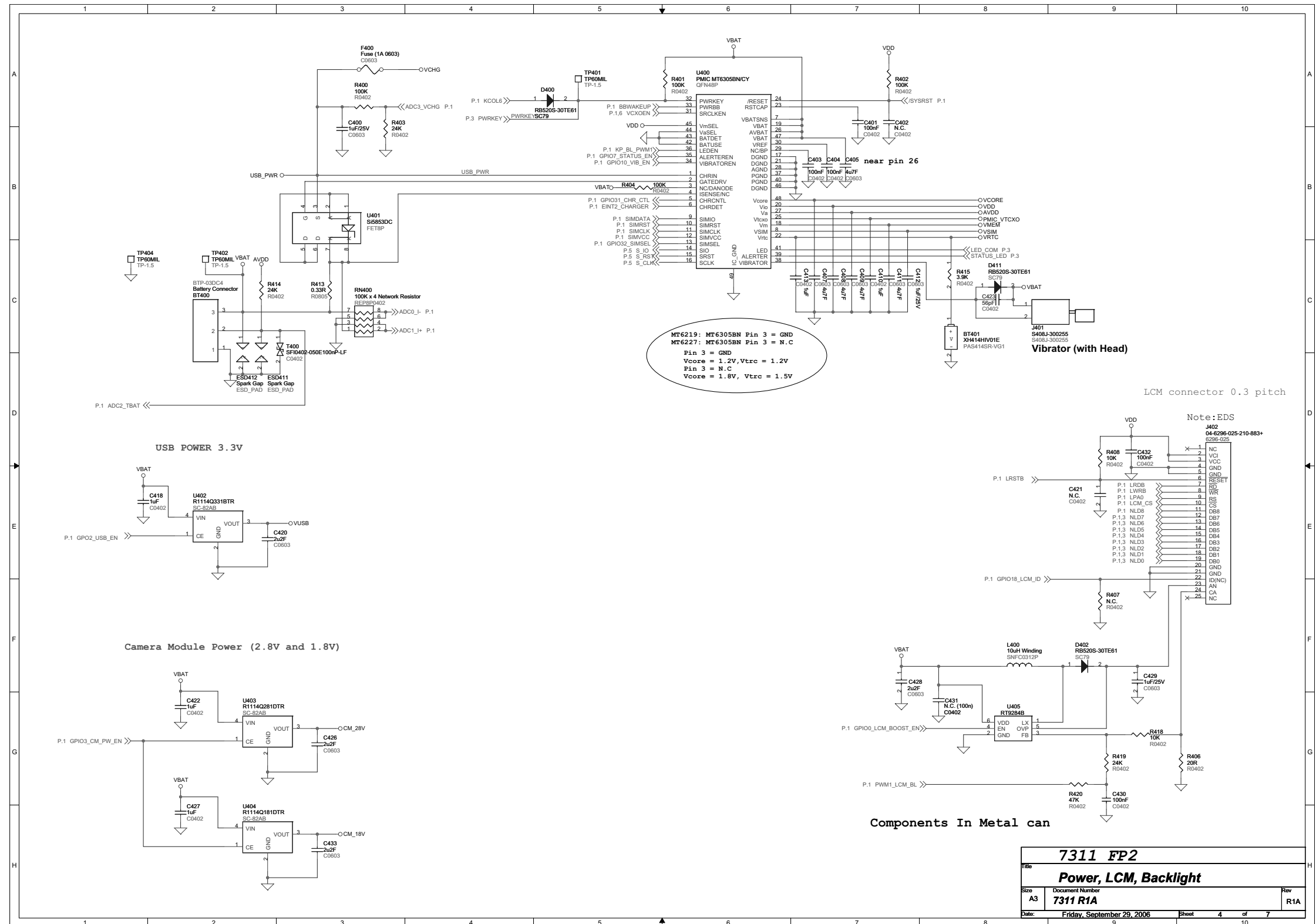
# 5. CIRCUIT DIAGRAMS



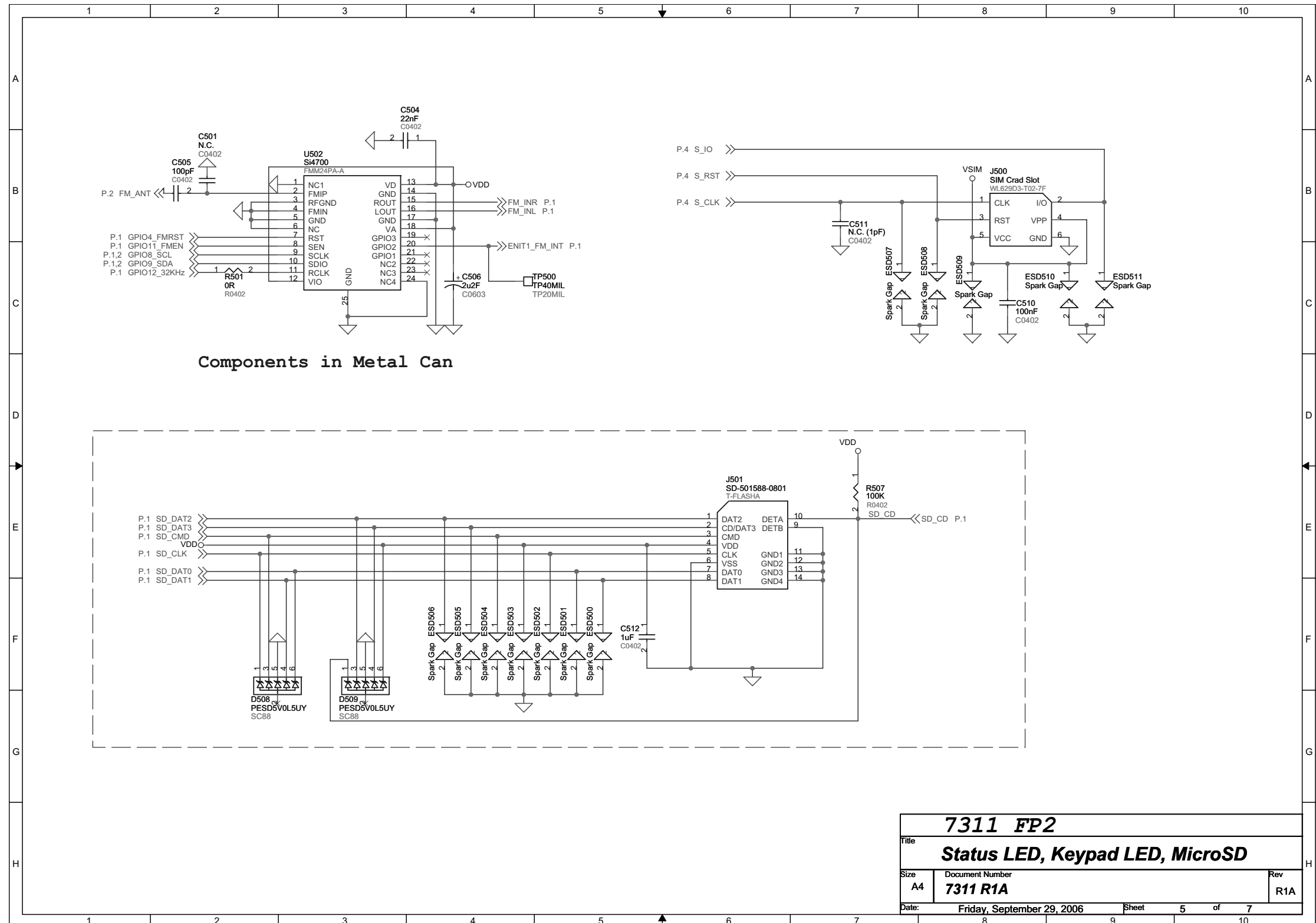
5. CIRCUIT DIAGRAMS



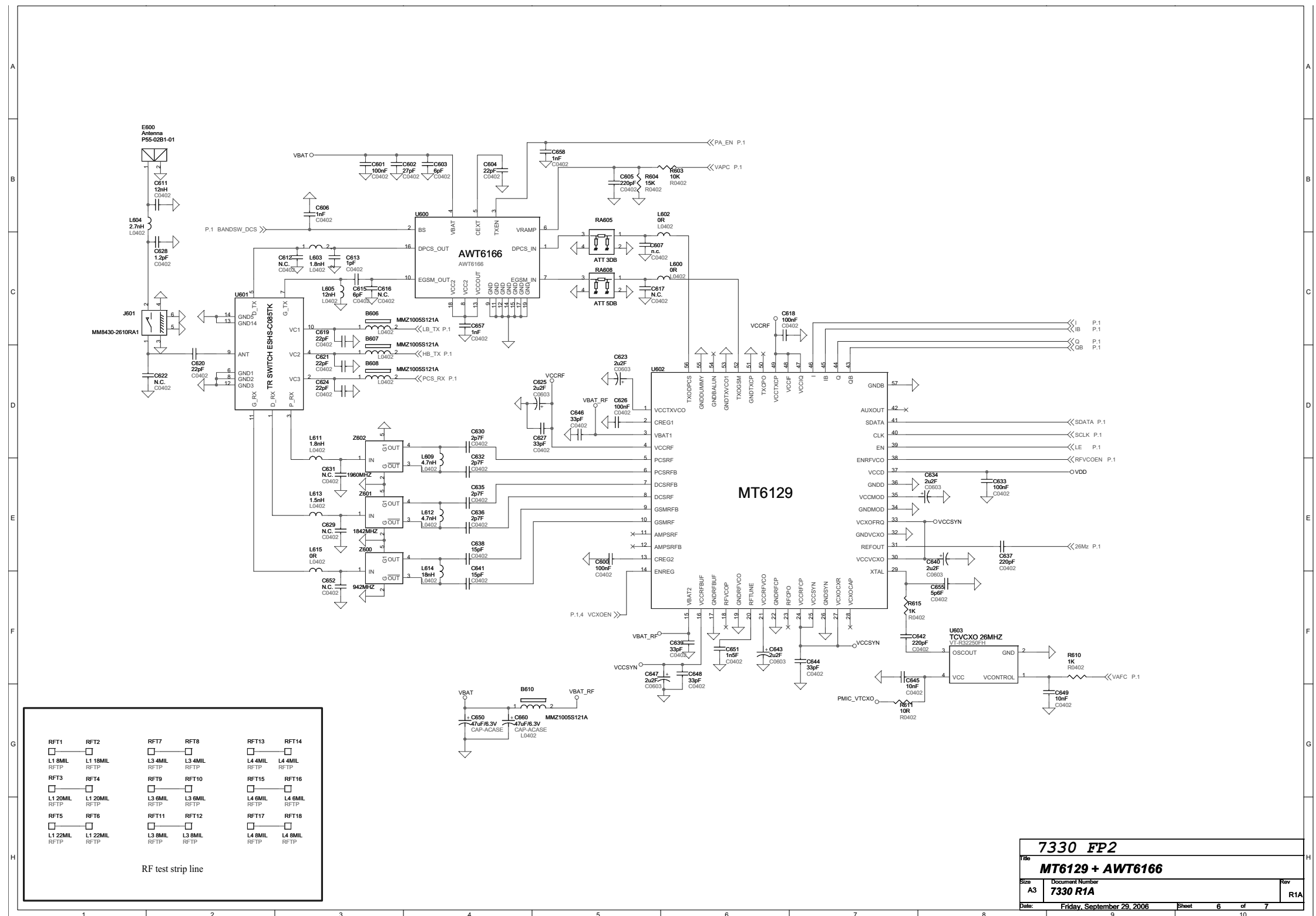
## 5. CIRCUIT DIAGRAMS



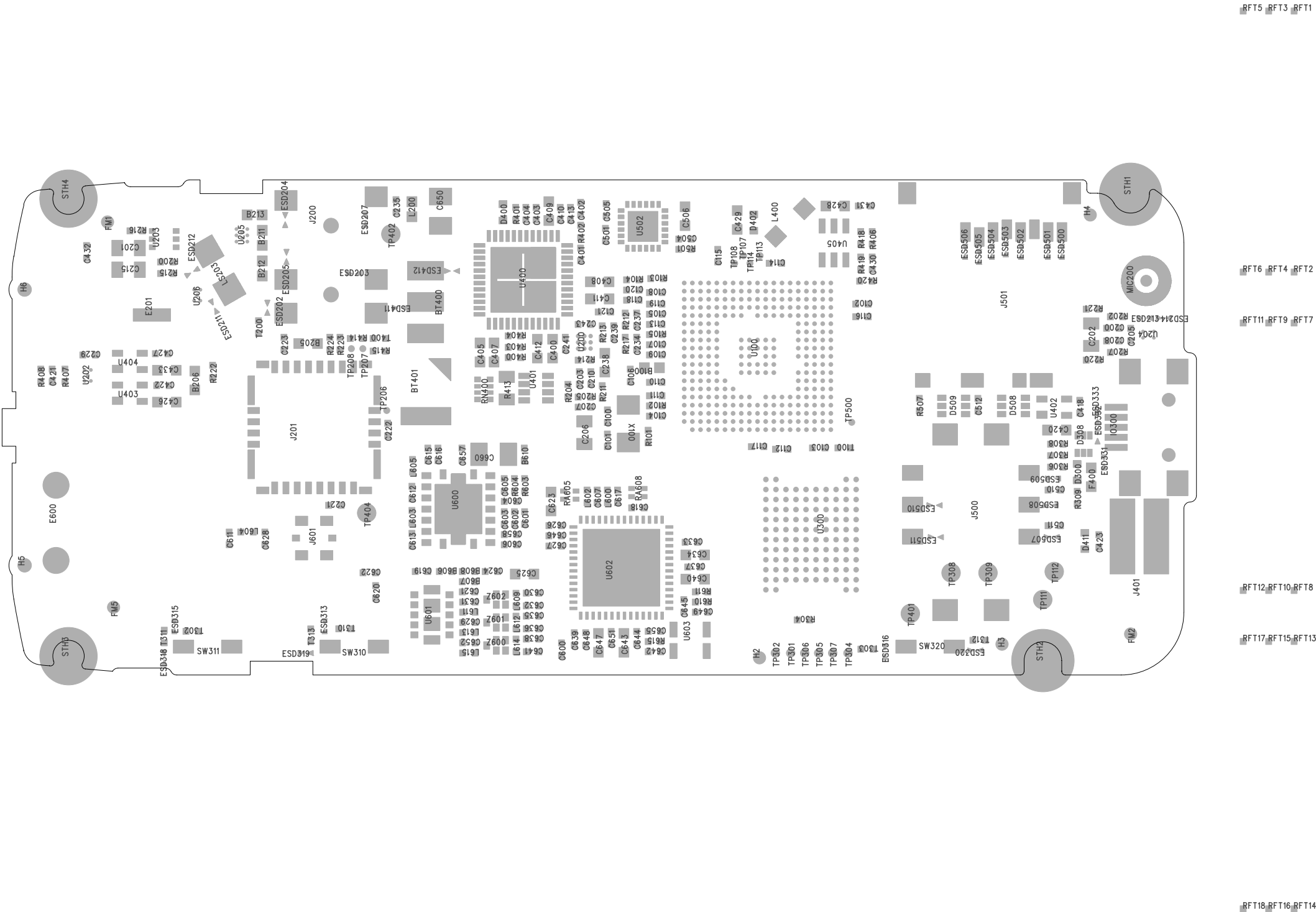
## 5. CIRCUIT DIAGRAMS



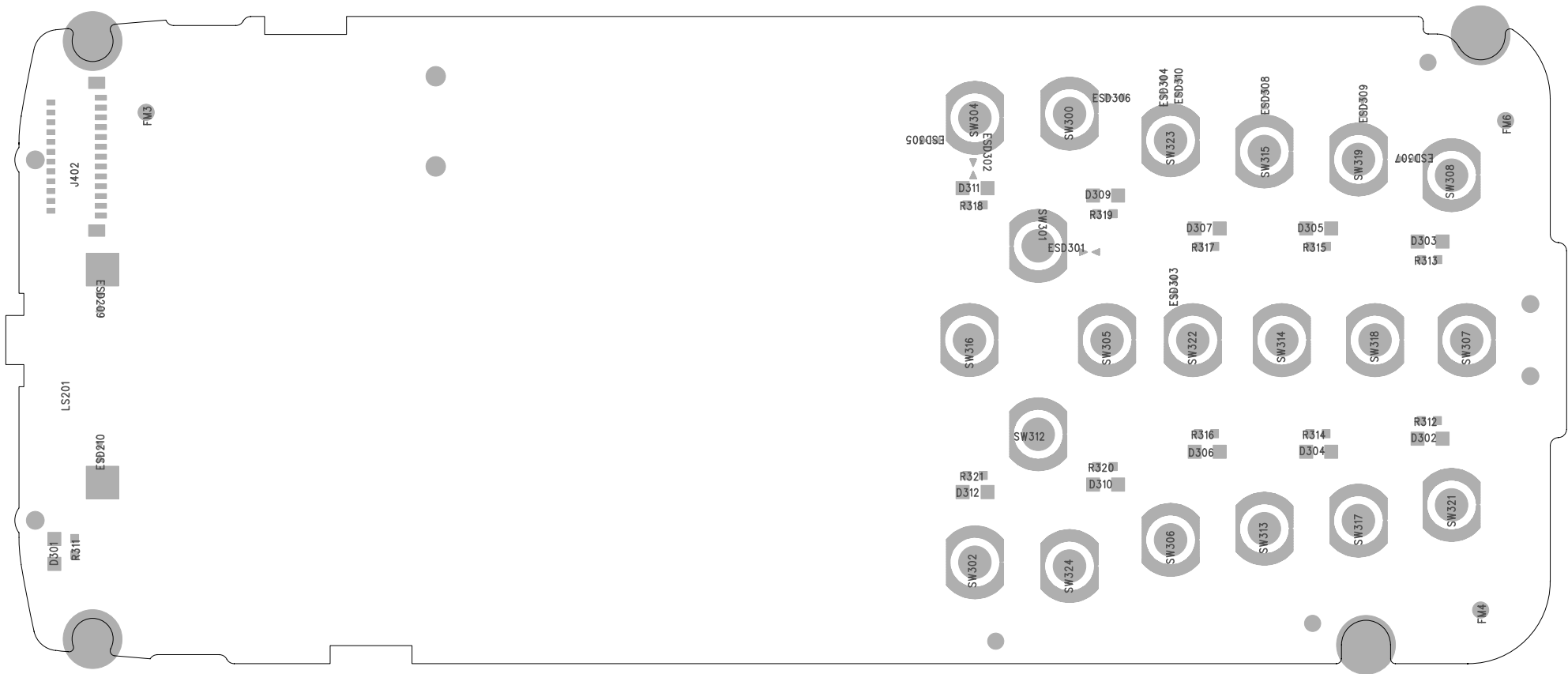
# 5. CIRCUIT DIAGRAMS



6. PCB LAYOUT

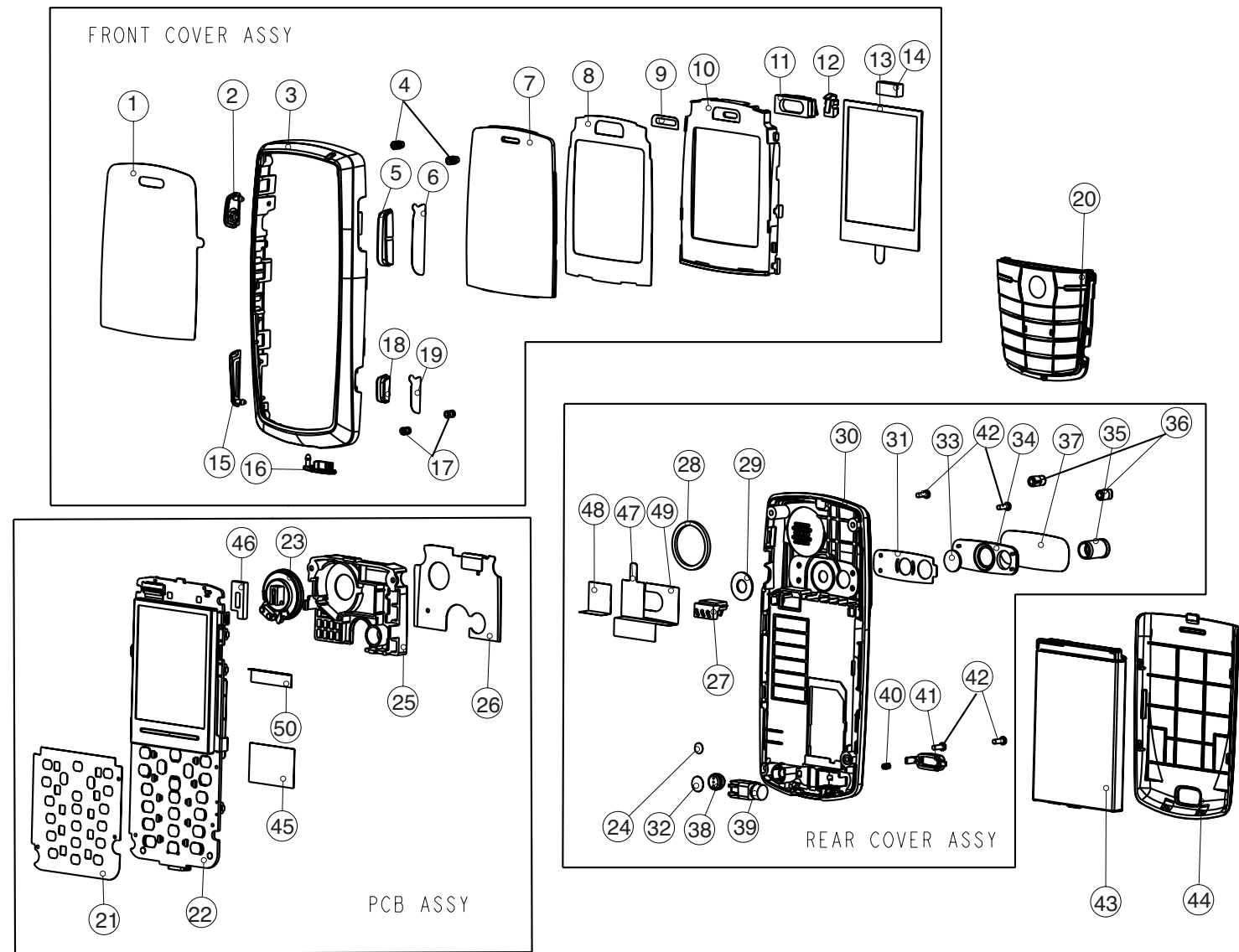


6. PCB LAYOUT



# 7. EXPLODED VIEW & REPLACEMENT PART LIST

## 7.1 EXPLODED VIEW



4	KG200 AREBK	MCCF0039701	
3	KG200 THABK	MCCF0039701	
2	KG200 INDBK	MCCF0039701	
1	KG200 CIS	MCCF0039701	
NO	MODEL	CAP,MOBILE SWITCH	REMARK

4	KG200 AREBK	TGSM0047901	ACGK0080201	ACGM0080001	MCJA0036901	AKAZ0018206	MBFZ0027201	MCCH0094101
3	KG200 THABK	TGSM0047901	ACGK0080201	ACGM0080001	MCJA0036901	AKAZ0018203	MBFZ0027201	MCCH0094101
2	KG200 INDBK	TGSM0047901	ACGK0080201	ACGM0080001	MCJA0036901	AKAZ0018202	MBFZ0027201	MCCH0094101
1	KG200 CIS	TGSM0047901	ACGK0080201	ACGM0080001	MCJA0036901	AKAZ0018201	MBFZ0027201	MCCH0094101
NO	MODEL	PHONE	COVER FRONT ASSY	COVER REAR ASSY	COVER BATTERY	KEY PAD	CARRIER, ANTENNA	CAP, SCREW

50	INSULATOR_BATTERY	1	—	
49	INSULATOR_B	1	—	
48	INSULATOR_A	1	—	
47	TAPE_PROTECTION_LENS	1	MTAB0134401	
46	PAD_SPEAKER_LOWER	1	—	
45	TAPE_SHIELD	1	—	
44	COVER_BATTERY	1	MCJA0036901	
43	BATTERY	1	SBPL0087501	
42	SCREW	4	GMEY0013901	
41	BUTTON_COVER_BATTERY	1	MLEA0035101	
40	COIL_SPRING	1	MSDC0015201	
39	MOTOR	1	SJMY0008901	
38	MIKE	1	SUMY0011601	
37	TAPE_PROTECTION_REAR	1	MTAB0134501	
36	CAP_SCREW	2	MCCH0094101	
35	CAP_MOBILE_SWITCH	1	MCCF0039701	
34	DECO_CAMERA	1	MDAD0026401	
33	LENS_CAMERA	1	MLCD0007601	
32	FILTER_MIKE	1	MFB00019801	
31	TAPE_DECO_CAMERA	1	MTAZ0153301	
30	COVER_REAR	1	ACGM0080001	
29	PAD_CAMERA	1	MPBT0033201	
28	PAD_SPEAKER	1	MPBN0035301	
27	CONNECTOR_BATT	1	ENTB0003901	
26	FILM_INTENA	1	—	
25	CARRIER_INTENA	1	MBFZ0027201	
24	AS_LABEL	1	—	
23	SPEAKER	1	SUSY0025501	
22	PCB	1	SAFY0192601	
21	METALDOME	1	ADCA0058101	
20	KEYPAD	1	AKAZ0018201	
19	TAPE_PROTECTION_CAMERA	1	MTAB0134301	
18	BUTTON_CAMERA	1	MBJZ0009301	
17	INSERT_FRONT_BOTTOM	2	MICB0001701	
16	CAP_USB	1	MCCZ0020401	
15	CAP_T-FLASHER	1	MCCZ0020501	
14	PAD_FPCB	1	MPBZ0150501	
13	PAD_LCD	1	MPBG0052201	
12	INDICATOR	1	MIAA0020101	
11	RECEIVER	1	SURY0013201	
10	BRACKET_WINDOW_LCD	1	MBFF0011201	
9	FILTER_RECEIVER	1	MFB00018501	
8	TAPE_WINDOW	1	MTAD0059401	
7	WINDOW_LCD	1	MWAC0072401	
6	TAPE_PROTECTION_VOLUME	1	MTAB0134201	
5	BUTTON_VOLUME	1	MBJN0010401	
4	INSERT_FRONT_TOP	2	MICC0011401	
3	COVER_FRONT	1	MCJK0064801	
2	CAP_EAR-JACK	1	MCCC0040301	
1	TAPE_PROTECTION_FRONT	1	MTAG0002801	
NO.	DESCRIPTION	Q'TY	DRAWING NO.	REMARK





## 7. EXPLODED VIEW & REPLACEMENT PART LIST

### 7.2 KG200 Service Parts

Location	Part name	LG Part number	Description	Color	Maker parts No(ARIMA)
<b>Chip Set</b>					
U100	BB processor	EUSY0326801	GP_IC BASEBAND PROCESSOR_MT6226MA/BC- L_TFBGA_296BALL_MTK	-	311009000002LJ
U400	Power IC	EUSY0325101	GP_IC POWER MANAGEMENT UNIT(PMU)_MT6305BN/CY-D- L_QFN_48PIN_MTK	-	311016000000LJ
U602	RF Transceiver	EUSY0325201	GP_IC TRANSCEIVER_MT6129N/AR- L_QFN_56PIN_MTK	-	311013000000LJ
<b>Memory</b>					
U300	Memory	EUSY0326901	GP_IC MEMORY(STACKED)_TV00579002CAGD_P- FBGA_107BALL_128+32+512M_TOSHIBA	-	3110070000060R
<b>RF</b>					
U600	Power Amplifier	SMPY0015601	GP_IC POWER AMP MODULE_AWT6166R_M15_18PIN_ANADIGICS	-	311014000000AH
U603	System clock crystal	EXXY0023601	GP_TCXO_VTR32250FH_26MHz_+- 14PPM_HOKURIKU	-	3050030000006F
U601	RF Antenna Switch Module	SFAY0009901	GP_TRIPLE SWITCHPLEXER_ESHSC085TK_HITACHI	-	3290020000007A
Z600	GSM Band SAW Filter	SFSY0032001	GP_FIL SAW_EFCH942MTCA7_942.5MHz_PANASONIC	-	3260000000000D
Z602	PCS Band SAW Filter	SFSY0032101	GP_FIL SAW_EFCH1960TCA1_1960MHz_PANASONIC	-	3260000000010D
Z601	DCS Band SAW Filter	SFSY0032201	GP_FIL SAW_EFCH1842TCA7_1842.5MHz_PANASONIC	-	3260000000020D
<b>BB</b>					
X100	RTC crystal	EXXY0023901	GP_QUARTZ CRYSTAL_CC7V- T1A_32.768KHz_+20PPM_12.5pF_MICRO CRYSTAL	-	3050000000037W
U401	Charger control MOS	EQFP0008801	GP_P Channel-MOSFET+Schottky_Si5853DC-T1- E3_ChipFET_VISHAY	-	31001900000001
U203	Analog switch	EUSY0326201	GP_IC ANALOG SWITCH_NLASB3157DFT2G_SOT- 363_6PIN_ON SEMI	-	3110170000013Y
U404	Regulator	EUSY0327101	GP_IC LDO_R1114Q181D-TR-FA_SC82- AB_4PIN_RICOH	-	3110190000026Q
U403	Regulator	EUSY0325601	GP_IC LDO_R1114Q281D-TR-FA_SC- 82AB_4PIN_RICOH	-	3110190000016Q
U402	Regulator	EUSY0325801	GP_IC LDO_R1114Q331B-TR-F_SC- 82AB_4PIN_RICOH	-	3110190000006Q
U405	Regulator	EUSY0327401	GP_IC DRIVER_RT9284B-15PJ6E_SOT- 23_6PIN_RICHTEK	-	3110150000024B
U502	FM chip	EUSY0326401	GP_IC FM MODULE_Si4700-B15- GMR_QFN_24PIN_SILICON LABS	-	31102500000291
U200	Audio amplifier	EUSY0326601	GP_IC AUDIO POWER AMPLIFIER_LM4990ITLXNOPB_micro SMD_9BALL_NS	-	3110260000070G
	THIN FILM FUSE	EFFD0002701	GP_SMD THIN FILM FUSE_1A_CF06V3T1R0L_0603_TA-I	-	30800200000077

## 7. EXPLODED VIEW & REPLACEMENT PART LIST

Location	Part name	LG Part number	Description	Color	Maker parts No(ARIMA)
	VARISTOR	SEVY0008601	GP_VARISTOR_5V_VPORT0402100MV05_0402_10pF_INPAQ	-	3080040000006A
	ATTENUATOR	SQGY0000301	GP_ATTENUATORS_3dB_50ohm_0404_i□ 0.3dB_YAGEO	-	33400003000006
	ATTENUATOR	SQGY0000401	GP_ATTENUATORS_5dB_50ohm_0404_i□ 0.3dB_YAGEO	-	33400005000006
<b>EME -SMT</b>					
IO300	USB CONNECTOR	ENSY0019501	GP_CON MINI USB CONNECTOR_MNC40-5K5U13_0.8mm_5PIN_ACON	-	31401800000428
SW310,SW311,SW320	Side Key Switch	ESCY0004801	GP_SWT TACT SW_EVQ9P701E_12V/50mA_4PIN_SPST_PANA SONIC	-	3150040000010D
J200	Ear Phone Jack	ENJE0006301	GP_CON EAR PHONE JACK CONNECTOR_LGK1509-0901FC_4POLE_6PIN_SMK	-	31400000000014
J500	SIM CONNECTOR	ENSY0019301	GP_CON SIM CARD CONNECTOR_WL629D3-T04-7F_2.54mm_6PIN_FOXCONN	-	31400100000210
LS203	Specker POGO Pin	ENTB0004101	GP_CON SPEAKER CONNECTOR_P72-02B1-01_3.5mm_2PIN_ACRON	-	314021000005JM
E600	Antenna POGO Pin	ENTB0004201	GP_CON ANTENNA CONNECTOR_P70-02B1-01_6.0mm_2PIN_ACRON	-	314020000002JM
J501	T-FLASH CONNECTOR	ENWY0005101	GP_CON T-FLASH MEMORY CARD CONNECTOR_501588-0802_1.1mm_8PIN_MOLEX	-	3140260000027Y
BT401	BACKUP BATTERY	SBPL0087401	GP_BACKUP BATTERY_Li-ion_3.3V_0.015mAh_XH414HIV01E_SEIKO	-	3060021000000S
J201	CAMERA SOCKET	ENSY0019401	GP_CON CAMERA MODULE SOCKET CONNECTOR_CLE9124-1502F_0.9mm_24PIN_SMK	-	31402500000214
J601	RF Switch Connector	ENWY0005101	GP_CON RF SWITCH_MM8430-2610_3.0mm_6PIN_MURATA	-	31401000000109
J402	LCM FPC CONNECTOR	ENQY0013501	GP_CON FPC CONNECTOR_04 6296 025 210 883_0.3mm_25PIN_KYOCERA ELCO	-	3140120000010Z
E201	SPRING CONNECTOR	ENTB0004301	GP_CON SPRING CONNECTOR_AS5016-A0G1E_NO PITCH_1PIN_P-TW0	-	31401600000112
	BB SHIELDING CASE	MCBA0015301	GP_SHIELDING CASE_7311_STAINLESS STEEL+COPPER-NICKEL-ZINC ALLOY_BB_JINCHYA	-	407001731101SW
	RF SHIELDING CASE	MCBA0015401	GP_SHIELDING CASE_7311_STAINLESS STEEL+COPPER-NICKEL-ZINC ALLOY_RF_JINCHYA	-	407001731102SW
<b>Top case Ass'y</b>					
	RECEIVER	SURY0013201	GP_SPE RECEIVER_SDRP0615FJ04-F6-G_15*6mm_32ohm_110dB(TYPE32)_AAC	-	313001100006AJ
	FRONT COVER	MCJK0064801	GP_FRONT CABINET_BLACK_7330_PC_GABEUL PLASTIC	Black	4010B7330000V7
	FRONT ASS'Y	ACGK0080201	Front Cover ASS'Y_black	Black	8FNC-7330-B000
<b>Bottom case Ass'y</b>					
	MIC	SUMY0011601	GP_MIC ELECTRET CONDENSER_OBF213-42S1033_60dB_±42dB_±2dB_5.2*2.85mm(with holder)_CONTACT TYPE_CST	-	312000000006BH
	BATTERY CONNECTOR	ENTB0003901	GP_CON BATTERY CONNECTOR_BTP-03DC4_2.5mm_3PIN_OCTEKCONN	-	314002000002FA

## 7. EXPLODED VIEW & REPLACEMENT PART LIST

Location	Part name	LG Part number	Description	Color	Maker parts No(ARIMA)
	VIBRATOR	SJMY0008901	GP_VIBRATOR Bar Type_Z4TH3B0140024_R2.5*12.5_JINLONG	-	3200000000019H
	REAR COVER	MCJN0059101	GP_REAR CABINET_BLACK_7330_PC_GABEUL PLASTIC	Black	4020B7330000V7
	SCREW CAP	MCCH0094101	GP_CAP_BLACK_7330_SILICON RUBBER_SCREW_MISUNG POLYTECH CO.	Black	4060B7330000VD
	RF CAP	MCCF0039701	GP_CAP_SILVER_7330_SILICON RUBBER_MOBILE SWITCH_MISUNG POLYTECH CO.	-	4060S7330000VD
	CAMERA DECO PROTECTIVE FILM	MDAD0026401	GP_PROTECTIVE FILM_7330_TESA 50550_CAMERA DECO_SIAU CHON	-	408006733003KL
	REAR ASS'Y	ACGM0080001	Rear Cover ASS'Y	Black	8RAC-7330-S000
ME Ass'y					
	SPEAKER	SUSY0025501	GP_SPE LOUD SPEAKER_EMS1637BPB1P_16mm_8ohm_89dB _EM-TECH	-	313000000000LZ
	ANT EMBEDDED	SNGF0021801	GP_ANT EMBEDDED_7330_TRI BAND_GREEN_PERLOS	-	3300017330008A
	CAMERA MODULE	SVCY0013801	GP_CAMERA MODULE CMOS_AR16F330_SXGA_ABILITY	-	3350000000001LR
	LCM	SVLM0023701	GP_LCD TFT LTPS_TD018THEJC_Transmissive_128 x160 dot 1.8" TPO	-	327005000000J9
	BATTERY COVER	MCJA0036901	GP_BATTERY COVER_BLACK_7330_PC_GABEUL PLASTIC	Black	4050B7330001V7
	ANTENNA COVER	MBFZ0027201	GP_ANTENNA COVER_BLACK_7330_PC_GABEUL PLASTIC	-	4050B7330000V7
	KEYPADS	AKAZ0018202	GP_KEYPAD_BLACK_7330_PC+RUBBER_INDIA _MISUNG POLYTECH CO.	Black	4040B7330002VD
	KEYPADS	AKAZ0018201	GP_KEYPAD_BLACK_7330_PLASTIC+RUBBER _RUSSIA_MISUNG POLYTECH CO.	Black	4040B7330000VD
	KEYPADS	AKAZ0018203	GP_KEYPAD_BLACK_7330_PC+RUBBER_THAI LAND_MISUNG POLYTECH CO.	Black	4040B7330004VD
	KEYPADS	AKAZ0018206	GP_KEYPAD_BLACK_7330_PC+RUBBER_ARA BIC_MISUNG POLYTECH CO.	Black	4040B7330003VD
	METAL DOME	ADCA0058101	GP_DOME_7330_METAL_FOR KEYPAD_FOXCONN	-	40800073300010
	SCREW	GMEY0013901	GP_SCREW_MACHINE SCREW_FLAT HEAD_+ NOTCH_M1.4mm_4mm_HNS	-	4090100149002Q
	LCM HIELDING	MFEA0014101	GP_SHIELDING CASE_7330_STAINLESS STEEL_LCM_JINCHYA	-	407001733000SW
	LCM MYLAR	MTAZ0178401	GP_ADHESIVE TAPE_7330_MYLAR_LCM/KEYPAD FPC_SIAU CHON	-	408005733001KL
	COPPER_LCM SHIELDING	MTAC0042901	GP_ADHESIVE TAPE_7330_COPPER_LCM SHIELDING_SIAU CHON	-	408005733000KL
	SPONGE_SPEAKER	MPBN0035301	GP_CUSHION_7312_SPONGE_SPEAKER SPRING_SIAU CHON	-	408003731200KL
	LCM MYLAR	MTAZ0178501	GP_ADHESIVE TAPE_7310_MYLAR_SIAU CHON	-	408005731000KL
	PROTECTIVE FILM	MTAB0134201	PROTECTIVE FILM_PVC_7310_MAIN LENS_58.71 x 44.2_I-mobile_SIAU CHON	-	208070900000KL
	MYLAR	MTAZ0178601	GP_ADHESIVE TAPE_7330_MYLAR_FOR PCBA_SIAU CHON	-	408005733005KL

## 7. EXPLODED VIEW & REPLACEMENT PART LIST

Location	Part name	LG Part number	Description	Color	Maker parts No(ARIMA)
<b>Accessory</b>					
	BATTERY PACK	SBPL0087501	GP_BATTERY PACK_Li-ion_3.7V_800mAh_WITHOUT COVER_E3AR040802H12_WELLDONE	-	306003100000A3
	SWITCHING TRAVEL CHARGER	SGCT0004601	GP_SWITCHING TRAVEL CHARGER_100~240V_5.2V_550mA_CE_GP-ACGN-22T-A22_Europe EN 50 075(ungrounded)_GEARWAY_SUNFONE	-	331000000000LY
	EAR SET	SGEY0006901	GP_HDF_CHM201STS04042_32ohm_56dB_-42dB_COTRON	-	333000000000D5
	USB Cable	SGDY0012701	GP_USB Cable_CUHD005B-S13-EF_FOXCONN_FOXCONN	-	41000100000110
<b>Repair Accessory</b>					
	SW D/L CABLE	SGDY0013001	SW D/L CABLE	-	410-7312000001
	RF Cable	SGDY0012901	RF Cable	-	410-7312000002
	PCBA	SAFY0192601	8ROA Main Board	-	8ROA-7330-0000



## Note

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